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Influence Of Siop Cognitive Coaching Workshops On Teaching Practices Of Esl Teachers And Esl Paraprofessionals

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INFLUENCE OF SHELTERED INSTRUCTION OBSERVATION PROTOCOL (SIOP) COGNITIVE COACHING WORKSHOPS ON TEACHING PRACTICES OF ESL TEACHERS AND ESL PARAPROFESSIONALS

by

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DEDICATION

This dissertation is lovingly dedicated to my mother, Angelina Alicea,

who always emphasized the importance of education.

Her prayers, encouragement, and support will always be remembered. Thank you.

Esta tesis está dedicada con amor a mi madre, Angelina Alicea,

quien siempre hizo hincapié la importancia de la educación.

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Introduction

Background of the Study

The fastest growing segment of students in schools in the United States are children of immigrants, half of who do not speak English fluently and are thus labeled English learners (ELs). In general, student achievement in U.S. schools will increasingly depend on the academic achievement of ELs (Lazarin, 2006), who are expected to make up 40% of the total student population by 2050 (Goldenberg, 2008). The 51% increase of ELs in public schools, from 3.5 million in 1997-1998 to 5.3 million in 2008-2009 academic years, is creating unique challenges to administrators and teachers. The data show that ELs are scoring lower than their peers. For example, approximately 12% of ELs were achieving at or above proficient in National Assessment of Education Progress (NAEP) fourth grade mathematics tests, compared to 42% of students who are not English learners (Mosqueda, 2010). The poor performance of ELs on standardized tests was indicated with only 3% of ELs scoring at proficient on reading at the eighth grade level. English language proficiency is a key predictor of future academic success in EL populations in United States schools where socio-economic status and home experiences result in a growing academic gap (Butler & Stevens, 2001).

Calderón, Slavin, and Sánchez (2011) asserted that the quality of instruction is what matters most in educating English learners. A disparity exists in the growth of teachers in understanding the best strategies to educate ELs and the rapid growth of EL students in public schools. Consequently, many school districts nation-wide are having difficulty in meeting the academic needs of students who lack proficiency in reading, mathematics, and writing. School districts are being challenged by federal and state mandates under the Elementary and Secondary

Education Act (ESEA) that require all students, both ELs and non-ELs, to meet specific academic goals. The state and federal mandates also require assessment of the English language proficiency of all students categorized as ELs. Schools are being required to meet demands for improved student outcomes with limited funding and teachers who have not been prepared to work with these students (Calderón, Slavin, & Sánchez, 2011).

According to Lewis (1999), teachers are increasingly being expected to work with ELs in general education classrooms. For the most part, these teachers have not been trained in providing instruction to students with limited English capabilities. ELs students acquire English most effectively when it is taught in the context of content studies, and they learn content most effectively when teachers are careful to attend to their language-learning needs. However, teachers without the proper foundation for teaching ELs may truly feel unprepared to address their needs. In addition, some teachers might worry that they are being evaluated based upon the achievement of EL students whom they do not feel equipped to reach. A study conducted by the National Center for Education Statistics (1999) on teacher quality indicated that approximately 20% of the teachers in K-12 public schools did not perceive that they were well prepared to work with students who were culturally and linguistically diverse. Most teachers in the study had participated in professional development and 19% had formal mentoring relationships with another teacher at least once a week. Among the teachers who had been mentored, 70% reported that mentoring had improved their teaching substantially.

Another factor that poses a challenge in the academic and language achievement of English learners is the implementation of the Common Core State Standards. In June 2010, the Michigan Department of Education adopted the Common Core State Standards (CCSS) as the new standards for Kindergarten through 12th grade in Mathematics and English Language Arts. Consequently, the Common Core State Standards demand higher expectations and considerable

greater language demands for English learners. Leadership and professional development are needed to develop effective approaches for providing English learners with access to and opportunities for rigorous academic work. Appropriate instruction for English learners includes teaching that is both culturally responsive and linguistically appropriate. Instruction and interventions should consider and build upon students' cultural knowledge, home language, background, and experiences, as well as their linguistic proficiency in both English and their native language (Carmichael, Martino, Porter-Magee, & Wilson, 2010).

The Assessing Comprehension and Communication in English State-to-State (ACCESS) Assessment for English learners developed by the Center for Applied Linguistics is a secure large-scale English language proficiency assessment given to Pre-Kindergarten through 12th graders who have been identified as English learners (ELs). It is given annually in World-Class Instructional Design and Assessment (WIDA) Consortium member states to monitor EL students' progress in acquiring academic English. The Michigan Department of Education is the 32nd State Educational Agency to join the WIDA Consortium since the consortium was created in 2003. Figure 1 represents a model of the use of the assessment for assuring that English language development standards are being taught in schools.

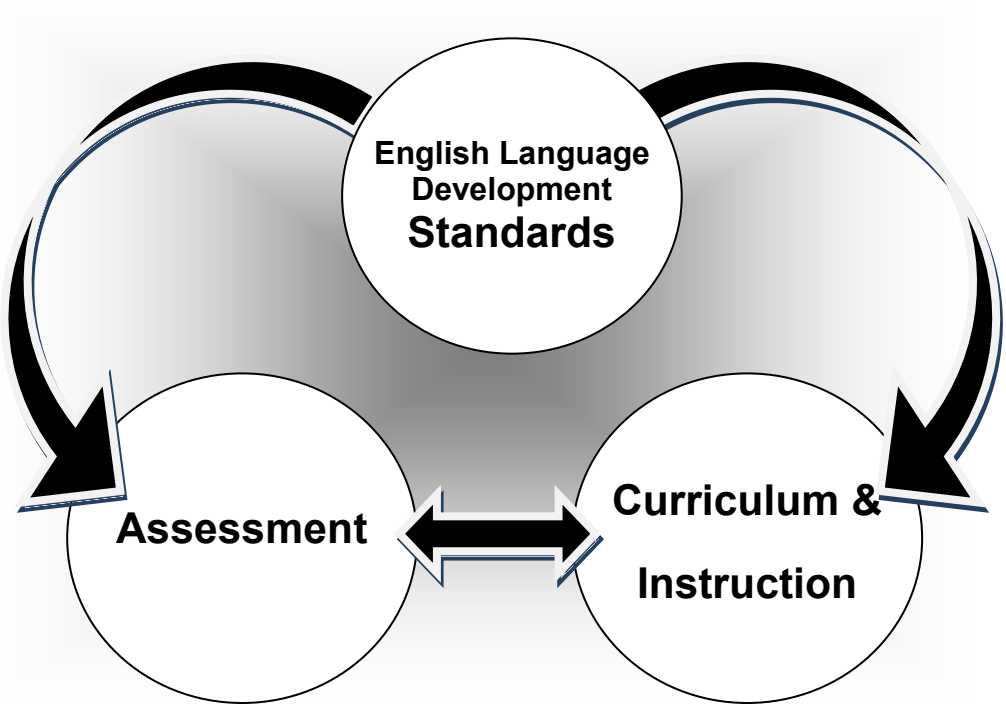

Figure 1 Assessment model for English learners

The educator's job is to be sure that all students understand the curricula prescribed by the state Department of Education. When English learners arrive in a school unable to read, write, or speak English very well, this expectation becomes even more challenging. Typically used teaching approaches must be refined if teachers expect to lead their English language learners to mastery of the curriculum.

The Sheltered Instruction Observation Protocol (SIOP) model of instruction was developed as a resource to support English learners (ELs) within the classroom setting through the implementation of specific instructional techniques (Echevarria, Vogt & Short, 2012). Instructional techniques that were integral parts of the SIOP model were designed with the purpose of making the required curricula accessible to students who were not yet fluent in English. Traditional teaching methods had proven inadequate for helping English learners to

comprehend content and retain it. As it evolved, the SIOP model incorporated a feedback instrument so that teachers could observe how effective or ineffective their methods were in reaching their students. This observational aspect of the SIOP helps teachers to assess the effectiveness of their teaching and indicates whether ELs are indeed comprehending material and retaining content. Students are taught content through sheltered instruction, including prior knowledge needed to understand curriculum standards, to ensure ELs are able to achieve mastery of curriculum, while also working toward mastery of the English language (Echevarria, Vogt, & Short, 2008; Read, 2009; WWC, 2009).

Sheltered instruction is a teaching approach premised on the idea that appropriate instruction would lead to not only comprehension in the content areas (social studies, math, and science), but at the same time, would help students achieve academically while they were moving towards greater proficiency in English. The Sheltered Instruction Observation Protocol (SIOP) model (Echevarria, Vogt & Short, 2000) was developed to provide teachers with a well-articulated, practical model of sheltered instruction. The intent of the model is to facilitate high quality instruction for English Learners in content area teaching.

Statement of the Problem

Academic success for ELs centers on a systematic way of filling gaps in understanding. The interruption in comprehension that ELs often experience is the result of the fact that English is not their first language. The designers of the SIOP model sought to provide a framework for supporting students in their content area learning while, at the same time, improving their fluency in English (Echevarria, Vogt, & Short, 2008). The focus of this study is to determine if the SIOP model of instruction influenced the perception of ESL teachers and ESL paraprofessionals who participated in a series of SIOP professional development workshop

sessions through the use of a reflective tool that incorporates cognitive coaching as a component (Costa & Garmston, 2002).

Regardless of the format of a teacher professional development program, they all have the same long-term goal of implementing a solid curriculum and teaching practices that research indicates will support student success. Teachers' frustrations with serving ELs often stems from their lack of confidence or understanding about how to serve these students; as teacher competence increases, attitudes may change (Arellano-Houchin et al. 2001; Gersten 1999; Ernst-Slavit, Moore, and Maloney 2002).

Research findings call for the implementation for the effective training of EL students to be academically successful. As a result of the rise in number of immigrant students entering the United States, there is an increased need for professional development focusing on research-based teaching practices for EL students. Many teachers in the United States are challenged to learn teaching strategies on the job for EL students, because they lack prior training in teaching this population of students (Batt, 208; Clair, 2000; Nieto, 2002; Ovando, Collier & Combs, 2003).

Purpose of the Study

The purpose of this study is to explore and report on the influence that cognitive coaching, as an embedded part of professional development, has on ESL teachers' and ESL paraprofessionals' learning and practice in the context of educating English learner (EL) students using the Sheltered Instruction Observation Protocol (SIOP) model of instruction. The teaching approach of sheltered instruction is premised on the idea that appropriate instruction will lead to not only comprehension in the content areas (social studies, math, and science), but at the same time, will help students to achieve academically while they are moving towards greater

proficiency in English. The Sheltered Instruction Observation Protocol (SIOP) Model (Echevarria, Vogt & Short, 2000) was developed to provide teachers with a well-articulated, practical model of sheltered instruction. The intent of the model is to facilitate high quality instruction for English learners in content area teaching. The study examines the influence of cognitive coaching in incorporating the SIOP model of instruction with EL students. The cognitive coaching process has the single purpose to help teachers improve instructional effectiveness through reflection (Garmston & Linder, 1993). The coach serves as a mediator who assists teachers to reflect and self-determine to change their cognitive behaviors of instruction. Joyce and Showers (2002) suggest that cognitive coaching is a beneficial component of professional development of teachers. Coaching is viewed as a viable way to foster acquisition of knowledge, teacher practice, collaboration and instructional support. Furthermore, it has proven to be effective in increasing greater consistency in instruction.

Research Questions

1. To what extent do ESL teachers and ESL paraprofessionals perceive that participation in cognitive coaching has influenced their knowledge of SIOP?
2. To what extent have ESL teachers and ESL paraprofessionals implemented SIOP in their classrooms?
3. Which of the eight components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) have ESL teachers and ESL paraprofessionals implemented in their classrooms?

Hypotheses

H_1: ESL teachers and ESL paraprofessionals perceive that participation in cognitive coaching has influenced their knowledge of SIOP.

H_{01}: ESL teachers and ESL paraprofessionals do not perceive that participation in cognitive coaching has influence their knowledge of SIOP.

H_2: ESL teachers and ESL paraprofessionals have implemented SIOP in their classrooms.

H_{02}: ESL teachers and ESL paraprofessionals have not implemented SIOP in their classrooms.

H_3: ESL teachers and ESL paraprofessionals are implementing the eight components of the SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) in their classrooms.

H_{03}: ESL teachers and ESL paraprofessionals are not implementing the eight components of the SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) in their classrooms.

Significance of the Study

As the population of the United States increases in diversity, teachers find their classrooms increasing in the number of English learners. Consequently, there is a sense of urgency for teachers to increase the achievement level for EL students on high stakes assessments. Students whose primary language is not English need to be provided with the most

appropriate model of instruction to prepare them to be global citizens through literacy (Goodwin, 2002). This study seeks to determine whether teachers perceive the Sheltered Instruction Observation Protocol (SIOP) model to be an effective tool for instruction to increase grade-level content acquisition and English language proficiency of English learner students.

Terms and Definitions Common to English Learners (ELs)

The following terms as defined apply to this study.

Academic language: the oral and written text required to succeed in school that entails deep understanding and communication of the language of content within a classroom environment; revolves around meaningful application of specific criteria related to Linguistic Complexity at the discourse level, Language Forms and Conventions at the sentence level, and Vocabulary Usage at the word/phrase level within the particular context in which communication occurs.

Annual measurable achievement objectives (AMAOs): AMAOs are indicators for measuring ELs progress in acquiring English, the achievement of English language proficiency, and EL annual yearly progress (AYP) in meeting state standards. Local education agencies that receive Title III funding are held accountable for the achievement of ELs. The AMAOs help to support state accountability efforts in the education of ELs on an annual basis.

Basic interpersonal communication skills (BICS): BICS are often referred to as "playground English" and are characteristically learned within 3 to 5 years. These language skills include basic, everyday speech that can be supported contextually through the use of body language. In 1979, researcher Jim Cummins made a distinction between fundamental conversation speech and cognitive academic language proficiency (CALP).

Bilingualism: the capability to communicate effectively in two languages, with the same relative degree of proficiency. It is important to note that bilinguals are rarely equally balanced in their use of two languages, one language is usually dominant (Baker, 2006).

Cognitive academic language proficiency (CALP): The level of proficiency required by an EL to comprehend the academic subject matter in a classroom setting (Cummins, 1979). This refers to language that is often abstract, and is not used in conjunction with contextual supports such as gestures or visual aids. It typically takes an EL about 4 to 7 years to reach this level of fluency (Hakuta, 2000).

Common Core State Standards: the skills and knowledge expected of students in English language arts, mathematics (Kindergarten – Grade 12), and literacy in history/social studies, science, and technical subjects, (Grades 6 – 12); adopted by the vast majority of states in the U.S. in 2010.

English learner (EL): a person who is in the process of actively acquiring English, and whose primary language is one other than English. This individual often benefits from language support programs to improve academic performance in English due to challenges in the areas of reading, comprehension, speaking, and/or writing skills in English. A few additional terms that are frequently used to refer to ELs include language minority students, English as a Second Language (ESL) students, culturally and linguistically diverse (CLD) students, and limited English proficient (LEP) students.

English as a second language (ESL): a term that is often used to designate students whose first language is not English. Currently, the term ESL is less frequently used than the term EL. Presently, ESL is more likely to refer to a teaching approach designed to support the instruction of English learners.

ESL paraprofessional: an individual who is bilingual and provides native language academic support to English learner students.

English Language Development Standards (ELDS): represent the social, instructional, and academic language that students need to engage with peers, educators, and the curriculum in schools.

Language proficiency: a person's competence in processing (through listening and reading) and producing (through speaking and writing) language.

L1: refers to the first language or native language of an English learner. The term L1 may also be used to refer to persons who are speaking in their native language.

L2: is a term that denotes an English learner's second language. It is often used in the context of "L2 student" to identify students who are non-native speakers of a language.

World-Class Instructional Design and Assessment (WIDA): an educational consortium of state departments of education that advances academic language development and academic achievement for linguistically diverse students through high quality standards, assessments, research, and professional development for educators.

Assumptions

This study was conducted under the following assumptions:

- ESL teachers and ESL paraprofessionals who have participated in a series of professional development sessions on the Sheltered Instruction Observation Protocol (SIOP) model of instruction, with cognitive coaching as an embedded component of the workshops, are knowledgeable about SIOP.

- ESL teachers and ESL paraprofessionals who have participated in a series of professional development sessions on SIOP, with cognitive coaching as an embedded component of the workshops, have implemented the principles of SIOP in their classrooms.
- ESL teachers and ESL paraprofessionals will respond to the survey items in ways that reflect their classroom practices.

Limitations

The following limitations are acknowledged for this study:

- The study is limited to ESL teachers and ESL paraprofessionals who have participated in a series of professional development sessions on SIOP, with cognitive coaching as an embedded component of the workshops, in a single urban school district.
- The study is limited to ESL teachers and ESL paraprofessionals who work with EL students.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

The following is a review of literature on English as a second language (ESL) teachers' and ESL paraprofessionals' experiences with cognitive coaching and the implementation of the Sheltered Instruction Observation Protocol (SIOP) Model of Instruction with their English learner (EL) students.

This study seeks to examine the influence of cognitive coaching as a component of professional development on the SIOP model of instruction developed by Echevarria, Vogt, and Short (2004). The SIOP model is widely regarded as a research-based model that has a positive impact on language learners' linguistic development and educational achievement throughout the United States and in numerous other countries (Echevarria, Short, & Vogt, 2008). Furthermore, Costa and Garmston (2002) developed a mentoring process known as cognitive coaching that provides a foundation for teachers to grow professionally by transforming their internal thought processes, values, cognitive processes, and internal resources. The focus of this study is to measure the impact that cognitive coaching has on implementing the SIOP model of instruction with fidelity with students acquiring English as a second language.

English Learners

English learners (ELs) are the most rapidly increasing population in schools in the United States (National Center for Education Statistics, 2009). In addition, they are also overrepresented in the group of students with academic difficulties; for this reason, literacy instruction is critical (McCardle, Mele-McCarthy, Cutting, Leos, & D'Emilio, 2005; Snow & Biancarosa, 2003). A projected 70% of ELs are concentrated in 10% of schools in the United States (Clewell &

Consetino de Cohen, 2007). The "literacy crisis" came into the spotlight due to ELs' low scores on literacy measures. One such measure was the National Assessment for Educational Progress (NAEP; Short & Fitzsimmons, 2007). Compared to 34% of native speakers of English, only 3% of EL 8th graders scored "proficient" or "advanced" in reading (National Center for Education Statistics, 2009). One might wonder if 3% of English speaking students would score "proficient" on a non-English literacy measure. Nevertheless, this finding inspired the "literacy crisis." Apart from being measured in their English reading, while they are learning English, these EL students are mandated to be assessed in content areas. Their scores on these district and state high-stakes measurements can have devastating consequences, particularly at the secondary level. With at least 50% of the United States using high school exit examinations to determine high school graduation, ELs face great challenges to even hope to receive a diploma (Short & Fitzsimmons, 2007).

A contributing factor to the poor performance of ELs is the role of academic language in literacy and learning (Echevarria, Richards-Tutor, Chinn & Ratleff, 2011). The use of academic language is a necessity in school for all students including both native speakers of English as well as English learner students. The distinction, however, is the use of academic language in the classroom is extremely (if not unrealistically) demanding for ELs, who are still acquiring basic everyday English. Herein lies the profound challenge for their teachers who must help bring their language proficiency up at the same time that school assignments require an increasingly more sophisticated academic English vocabulary.

Perspectives in Second Language Acquisition Theory

Cummins (1979) and Krashen (2009) are two well-respected scholars in the field of second language acquisition. Both researchers have developed separate theories on language acquisition and have written extensively on how these theories have helped educators to instruct English learners.

Cummins' (1979) research on the nature of language proficiency and second language acquisition emphasized social and academic barriers that could limit success for culturally diverse students. Cummins believed that learning occurred when students were more likely to feel comfortable in their classrooms and their identities are confirmed.

The iceberg theory (Cummins, 1979) is comprised of basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP). BICS are at the tip of the iceberg and are referred to as language skills necessary for day-to-day communication. Grammar, pronunciation, and vocabulary play roles in this type of language that typically takes one to three years to acquire. CALP is at the base of the iceberg, which is the more complex academic language that takes between seven and ten years to acquire. CALP incorporates application, comprehension, and knowledge of academic language along with the ability to analyze, synthesize, and evaluate content.

The five main hypotheses in Krashen's (1982) theory of language acquisition include: acquisition/learning hypothesis, natural order hypothesis, monitor hypothesis, input hypothesis, and affective filter hypothesis.

- The *acquisition/learning theory* distinguishes two methods of language learning: (a) acquisition – a subconscious process; and (b) learning – a conscious process.

- The *natural order hypothesis* proposes that grammatical morphemes are obtained in a somewhat predictable order. Krashen (2009) rejected grammatical sequencing when the goal is language acquisition.
- The *monitor hypothesis* proposed that acquisition was responsible for language fluency and learning (where one knows the rules) functions to edit and correct when three specific functions are met: (a) the learner has sufficient time at their disposal, (b) time is available to focus on form and correctness, and (c) students know the rules. The role of the monitor hypothesis was to give a more polished appearance. Individual student characteristics also factored into the monitor hypothesis. Students who are overly concerned with monitoring their language production are considered over-users, while students who had not learned and preferred not to use their conscious knowledge are under-users. Students who monitor as needed are optimal users. Psychological profiles also factor into types of users. For example, extroverts typically are under-users and perfectionists tend to over use.
- The *input hypothesis* is the ways in which a learner acquires a second language; acquiring meaning first and structure second. When a learner receives instruction that is one step above their competence (level i + 1), learning typically occurs (Krashen, 1983). Teachers need to incorporate input appropriate to the level of the students, as ELs are at the different proficiency levels.
- The *affective filter hypothesis* suggests that a number of variables can influence second language acquisition. Krashen contends that people who are highly motivated to learn a language have high self-esteem and low anxiety, and are more likely to be successful in acquiring a second language. Conversely, learners who suffer from low

self-esteem and high anxiety encounter more difficulty and raise their affective filter, potentially impeding language acquisition.

Krashen also partnered with Terrell (as cited in Hill & Flynn, 2006) on the stages of language acquisition that first appeared in the book, *The Natural Approach* (1983). Table 1 provides the stages of language acquisition, characteristics of each stage, time frame, and teacher prompts that are used at each stage.

Table 1

Stages of Second Language Acquisition

Stage	Characteristics	Approximate Time Frame	Teacher Prompts
Preproduction	The student • Has minimal comprehension • Does not verbalize • Nods "Yes" and "No" • Draws and points	0 – 6 months	• Show me… • Circle the… • Where is…? • Who has…?
Early Production	The student • Has limited comprehension • Produces one-or two – word responses • Participates using key words and familiar phrases • Uses present – tense verbs	6 months – 1 year	• Yes/no questions • Either/or questions • One or two – word answers • Lists • Labels
Speech Emergence	The student • Has good comprehension • Can produce simple sentences • Makes grammar and pronunciation errors • Frequently misunderstands jokes	1 – 3 years	• Why…? • How…? • Explain… • Phrase or short – sentence answers
Intermediate Fluency	The student • Has excellent comprehension • Makes few grammatical errors	3 – 5 years	• What would happen if…? • How…?
Advanced Fluency	The student has a near-native level of speech.	5 – 7 years	• Decide if… • Retell…

Note: Krashen & Terrell as cited in Hill & Flynn, 2006, p. 15

Six language proficiency levels outline the progression of language development implied in the acquisition of English as an additional language, from 1, "Entering" the process, to 6, "Reaching" the attainment of English language proficiency. Table 2 defines the expectations of students at each proficiency level. The definitions encompass three criteria: linguistic complexity – the amount and quality of speech or writing for a given situation; vocabulary usage – the specificity of words or phrases for a given context; and language control – the comprehensibility of the communication based on the amount and types of errors (WIDA Consortium, 2006).

Table 2

Performance Definitions for the Levels of English Language Proficiency

At the given level of English language proficiency, English learners will process, understand, produce, or use:	
6 Reaching	• specialized or technical language reflective of the content area at grade level • a variety of sentence lengths of varying linguistic complexity in extended oral or written discourse as required by the specified grade level • oral or written communication in English comparable to proficient English peers
5 Bridging	• the technical language of the content areas; • a variety of sentence lengths of varying linguistic complexity in extended oral or written discourse, including stories, essays, or reports; • oral or written language approaching comparability to that of English proficient peers when presented with grade level material
4 Expanding	• specific and some technical language of the content areas; • a variety of sentence lengths of varying linguistic complexity in oral discourse or multiple, related paragraphs; • oral or written language with minimal phonological, syntactic, or semantic errors that do not impede the overall meaning of the communication when presented with oral or written connected discourse with occasional visual and graphic support
3 Developing	• general and some specific language of the content areas; • expanded sentences in oral interaction or written paragraphs; • oral or written language with phonological, syntactic, or semantic errors that may impede the communication but retain much of its meaning when presented with oral or written, narrative or expository descriptions with occasional visual and graphic support
2 Beginning	• general language related to the content areas; • phrases or short sentences; • oral or written language with phonological, syntactic, or semantic errors that often impede the meaning of the communication when presented with one to multiple-step commands, directions, questions, or a series of statements with visual and graphic support
1 Entering	• pictorial or graphic representation of the language of the content areas; • words, phrases, or chunks of language when presented with one-step commands, directions, WH-questions, or statements with visual and graphic support

Note: *English language proficiency standards and resource guide*, 2007 edition, prekindergarten through grade 12.

Methods for Teaching English Learners

Table 3 presents definitions of models for language instruction educational programs.

Table 3

Definitions of Models for Language Instruction Educational Programs

Model	Alternate Names	Description	Approach	Goals	Key Design Variables
English as a second language (ESL) instruction	English language development (ELD) English for speakers of other languages (ESOL)	ESL-certified teacher provides explicit language instruction to students. Instruction focuses on development of proficiency in the English language, including grammar, vocabulary, and communication skills.	ESL	Proficiency in English	Class format – Students may have a dedicated ESL class in their school day, or may receive pull-out ESL instruction wherein they work with a specialist for short periods during other classes.
Content-based ESL	None	ESL-certified teacher provides language instruction that uses content as a medium for building language skills. Although using content as a mean, instruction is still focused primarily on learning English.	ESL	Preparation to meet academic achievement standards Proficiency in English	Class format – Students may have a dedicated ESL class in their school day, or may receive pull-out instruction wherein they work with a specialist for short periods during other classes.
Sheltered instruction	Specially designed academic instruction in English (SDAIE) The Sheltered Instruction Observation Protocol (SIOP) is a specific version of the SI model with a considerable research base and specific strategies associated with it.	Teacher provides instruction that simultaneously introduces both language and content, using specialized techniques to accommodate ELs' linguistic needs. Instruction focuses on the teaching of academic content rather than the English language itself, even though the acquisition of English may be one of the instructional goals.	ESL	Preparation to meet academic achievement standards Proficient in English	Class population – SI may be used for EL-only classrooms or for mixed classrooms with ELs and non-ELs Instructor – Instruction is likely to be delivered by a general education teacher but may be delivered by an ESL-certified teacher.

Model	Alternate Names	Description	Approach	Goals	Key Design Variables
Transitional bilingual education (TBE)	Early-exit bilingual	Students begin in grade K or 1 by receiving instruction all or mostly in the L1 and transition incrementally over to English. Typically, transition to all English is complete by mid- to late elementary school. L1 is used to leverage L2 acquisition, but L1 proficiency is not a program goal.	Bilingual	Preparation to meet academic achievement standards Proficiency in English	Balance of L1 and L2 – Some TBE programs begin with L1 exclusively, others being with a majority of L1 and use some L2. The division of the languages across instructional time and content areas may vary from program to program. Exit point – Typically, students complete their transition by around grade 3, but may exit as early as grade 2, or as late as grade 5.
Developmental bilingual education (DBE)	Late-exit bilingual Maintenance bilingual	Students begin in grade K or 1 by receiving instruction all or mostly in their L1 and transition incrementally over to English. Regardless of when or whether students attain proficient in English, the program is designed to keep them enrolled through its completion (typically, the end of elementary school), using a 50-50 language balance through the end	Bilingual	Preparation to meet academic achievement standards Proficiency in English Bilingualism and illiteracy	Balance of L1 and L2 – Programs follow either a 50-50 model or a 90-10 model (which ultimately transitions to 50-50). Programs may balance languages by dividing instructional time according to content area, class period, instructor, week, unit, or semester. Instructor(s) – Teachers may be bilingual or teachers who teach in English may use sheltered instruction techniques to make their instruction accessible for ELs
Two-way immersion (TWI)	Dual immersion	ELs and non-ELs receive instruction in English and a non-English language	Bilingual	Preparation to meet academic achievement standards Proficiency in English Bilingualism and bi-literacy	Balance of L1 and L2 – Programs follow either a 50-50 model or a 90-10 model (which ultimately transitions to 50-50). Programs may balance languages by dividing instructional time

Model	Alternate Names	Description	Approach	Goals	Key Design Variables
				Biculturalism	according to content area, class period, instructor, week, unit, or semester. Instructor(s) – Teachers may be bilingual or teachers who teach in English may use sheltered instruction techniques to make their instruction accessible for ELs
Newcomer	Newcomer center	ELs who are recent immigrants and typically have low literacy and are new to formal education settings receive specialized schooling designed to acclimate them to the American school setting and prepare them to participate in mainstream classes.	ESL or bilingual	Preparation to participate in regular LIEP offerings Build foundational skills in content areas (basic literacy, math concepts, etc.)	Program length – Newcomer programs may last anywhere from one semester to 4 years Program design – Newcomer programs may range from a half-day, in-school program to a full-time, self-contained school. Target population – Newcomer programs target a specific subpopulation such as recent immigrant students with interrupted formal education Instructional content – Typically newcomer programs will offer both language instruction and content instruction. Also, they may include instruction designed to familiarize newcomers with American culture and educational settings.

(Faulkner-Bond et al., 2012, pp. x – xii)

Theoretical Perspective on Professional Development

The National Staff Development Council (Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009) has developed a definition of professional development that has been adopted by the state of Michigan. Hirsh (2009) provided the definition:

> The concept of "professional development" reflects a comprehensive and systematic approach in improving instructional staff's effectiveness in increasing the academic achievement of students –
>
> (A) Professional development promotes a collaborative responsibility to raise student achievement and must consist of professional learning that:
>
> (1) supports comprehensive common core state standards as well as the local district's school improvement goals;
>
> (2) is facilitated by the school's teaching staff and conducted by experienced administrators and/or instructional specialists with a comprehensive background in professional development;
>
> (3) frequently takes place multiple times every week within professional learning community meetings of experienced instructional staff and administrators to promote an on-going cycle of increased student achievement that –
>
> (i) evaluates student, teacher, and school learning needs, through a thorough review of data on teacher and student performance;
>
> (ii) identifies specific learning objectives based on the disaggregation of data;
>
> (iii) attains the objectives specified in subsection (A)(3)(ii) by using consistent, on-going, and research-based teaching approaches, for example lesson analysis and the creation of formative assessments to increase students' level of academic achievement;
>
> (iv) offers cognitive coaching or additional methods of support to facilitate different teaching strategies in the classroom;
>
> (v) consistently evaluates the usefulness of the professional development in reaching the specified learning objectives and helping all students meet or exceed the common core state academic standards;
>
> (vi) identifies continual enhancements in instruction and student achievement; and
>
> (vii) that may be facilitated with outside support.
>
> (B) The procedure identified in (A) can be effectively implemented through the use of professional learning communities, in-service trainings, and conferences that (1) should meet the learning objectives created for professional

> development by school-building instructional staff; (2) promote the continual implementation of professional development; and (3) are offered by external profit and nonprofit education organizations that may include universities and technical assistance providers. (p. 12-15)

Professional development in education has been the subject of extensive research (e.g., Darling-Hammond; Guskey; Loucks-Horsley, Hewson, Love & Styles; Bailower, Body Pasley, & Weiss, etc.). Most states require all teachers to participate in professional development at their schools, school districts, and at external locations. For example, in Michigan, the intermediate school districts provide professional development for teachers in their content area(s) of instruction. According to Guskey (2002), "Professional development programs are systematic efforts to bring about change in classroom practices of teachers, in their attitudes and beliefs, and in the learning outcomes of students" (p. 381). The content of professional development programs differ and range from lecture to hands-on activities. Regardless of the delivery system and focus of the programs, the end result is to improve student achievement.

Guskey (2002) developed five levels of professional development. These levels are hierarchical, with each higher level building on the previous one. The five levels are:

1. Participant reaction: to gauge the participants' reactions about information and basic human needs
2. Participant learning: examine participants' level of attained learning
3. Organizational support and learning: determine organizational support for skills gained in staff development
4. Participant use of new knowledge and skills: determine whether participants are using what they learned and using it well
5. Student learning outcomes: analyze the correlating student learning objectives (Guskey, 2002, para. 4-8).

Guskey, (2002), states that professional development programs focus on three main objectives: (a) altering teachers' classroom practices, (b) altering attitudes and beliefs of teachers,

and (c) altering students' learning outcomes to improve student achievement. When designing professional development programs, the assumption is that teachers and school administrators will accept, commit, and be enthusiastic about the concepts prior to implementing them in their classrooms and schools. However, these types of programs generally are not successful in changing teachers' attitudes regarding the concepts and teachers are unlikely to commit to using the concepts in their classrooms. An alternative approach, suggested by Guskey (2002) provides a different arrangement for the three objectives of professional development. See Figure 2 for the alternative model of professional development.

Figure 2: Alternative model of professional development (Guskey, 2002, p. 383).

As the model suggests, the teachers attend the professional development and then apply what they learn in their classrooms. They then observe changes in student outcomes resulting from changes in their instructional delivery learned during the professional development program. Because of positive changes in their students, the teachers' attitudes and beliefs about professional development are strengthened and they become more willing to attend and apply what is presented in the professional development programs.

According to Guskey (2005), professional development must be evaluated to determine its value in education. Without strong evaluation processes, the benefits of professional development may not be recognized by state and federal leaders. Consensus has not been reached on a single definition of evaluation. However, Guskey (2005) adapted the definition from the Joint Committee on Standards for Educational Evaluation that "evaluation is the systematic investigation of merit or worth" (p. 11). The important word in this definition is "systematic." The evaluation needs to be "thoughtful, intentional, and purposeful" (p. 11). The evaluation must be planned and carefully thought out and must be specific to the professional development program being presented.

The five levels of professional development evaluation that need to be considered include: (a) participants' reactions; (b) participants' learning; (c) organizational support and change; (d) participants' use of new knowledge and skills; and (e) student learning outcomes. These levels are hierarchal, with each succeeding level more time consuming and costly in terms of school resources. The same questions must be addressed at each level (Guskey, 2005). Table 4 presents the five levels of professional development evaluation.

Table 4

Five Levels of Professional Development Evaluation

Evaluation Level	What Questions Are Addressed?	How Will Information Be Gathered?	What Is Measured Or Assessed?	How Will Information Be Used?
1 Participants' Reactions	• Did they like it? • Was their time well spent? • Did the material make sense? • Will it be useful? • Was the leader knowledgeable and helpful? • Were the refreshments fresh and tasty?	• Questionnaires or surveys administered at the end of the session.	• Initial satisfaction with the experience.	• To improve program design and delivery.

Evaluation Level	What Questions Are Addressed?	How Will Information Be Gathered?	What Is Measured Or Assessed?	How Will Information Be Used?
	• Was the room the right temperature? • Were the chairs comfortable?			
2 Participants' Learning	• Did participants acquire the intended knowledge and skills?	• Paper-and-pencil instruments. • Simulations. • Demonstrations. • Participant reflections (oral and/or written). • Participant portfolios.	• New knowledge and skills of participants.	• To improve program content, format, and organization.
3 Organizational Support and Change	• Were sufficient resources made available? • Were problems addressed quickly and efficiently? • Was implementation advocated, facilitated, and supported? • Were successes recognized and shared? • Was the support public and overt? • What was the impact on the organization? • Did it affect organizational climate and procedures?	• Minutes from follow-up meetings. • Questionnaires. • Structured interviews with participants and district or school administrators. • District and school records. • Participant portfolios.	• The organization's advocacy, support, accommodation, facilitation, and recognition.	• To document and improve organizational support. • To inform future change efforts.
4 Participants' Use of New Knowledge and Skills	• Did participants effectively apply the new knowledge and skills?	• Questionnaires. • Structured interviews with participants and their supervisors. • Participant reflections (oral and/or written). • Participant portfolios. • Direct observations. • Video or audiotapes.	• Degree and quality of implementation.	• To document and improve the implementation of program content.
5 Student Learning Outcomes	• What was the impact on students? • Did it influence students' physical or emotional well-being? • Are students more confident as learners?	• Student records. • School records. • Questionnaires. • Structured interviews with students, parents, teachers, and/or administrators. • Participant	• Student learning outcomes. • Cognitive (performance and achievement). • Affective (attitudes and dispositions). • Psychomotor (skills and behaviors).	• To focus and improve all aspects of program design, implementation, and follow-up. • To demonstrate the overall impact of professional development.

Evaluation Level	What Questions Are Addressed?	How Will Information Be Gathered?	What Is Measured Or Assessed?	How Will Information Be Used?
	• Is student attendance improving? • Are dropouts decreasing?	portfolios.		

SOURCE: Adapted from *Evaluating Professional Development* by Thomas R. Guskey, 2005, p. 14

According to Guskey (2005), the implications from using this model for evaluating professional development programs suggest that each level is important. Conducting an evaluation at one level is independent of conducting evaluations at other levels, and if the goal of professional development is to influence academic outcomes for students, then the levels of the evaluation must be reversed. The desired student outcomes must be detailed and considered when planning the professional development. Then, the professional development program must consider what instructional strategies and policies must be changed to accomplish the goal of improved student outcomes. Each preceding level must be considered in terms of attaining the goal of improved student outcomes.

Perspective on Cognitive Coaching

Cognitive Coaching strengthens professional performance by enhancing one's ability to examine familiar patterns of practice and reconsider underlying assumptions that guide and direct action. According to Costa and Garmston (2002), cognitive coaching is defined as:

> A non-judgmental, developmental, reflective model derived from a blend of the psychological orientations of cognitive theorists and the interpersonal bonding of humanists. It is based on the belief that growth is achieved through the development of intellectual functioning. The coaching interaction is focused on mediating a practitioner's thinking, perceptions, beliefs, and assumptions toward the goals of self-directed learning and increased complexity of cognitive processing. (p. 5)

The initial purpose of this model is to enhance an individual's capacity for self-directed learning through self-management, self-monitoring, and self-modification. Figure 3 presents the model for cognitive coaching.

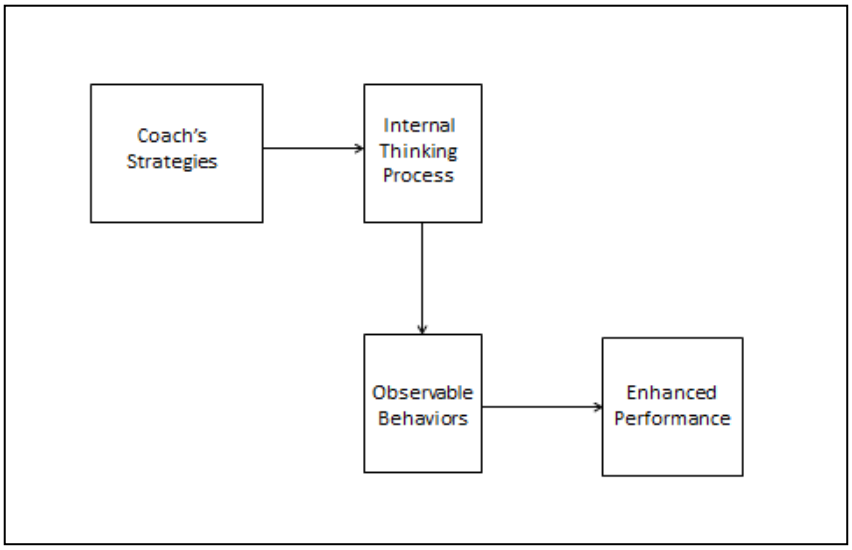

Figure 3: Cognitive Coaching: A Foundation for Renaissance Schools (Costa & Garmston, 2002, p. 16).

The unique contribution of cognitive coaching is that it influences another person's thought processes. Cognitive coaching is systematic, rigorous, and data-based, with three goals: trust, mutual learning, and holonomy (to be both autonomous and interdependent simultaneously).

Trust is comprised of four components: "trust in the self, trust between individuals, trust in the coaching process, and trust in the environment" (p. 96). Building trust requires "consistency, maintaining confidentiality, visibility and accessibility, keeping commitments, sharing personal information, expressing interest in others, listening reflectively, acting nonjudgmentally and admitting mistakes, and demonstrating professionalism" (Eger, 2006, p. 22). Trust is important in cognitive coaching, but can be damaged if the behaviors associated

with trust are not maintained. According to Garmston and Costa (1994), trust is necessary to realize mutual learning and holonomy, as trust builds an environment where learning and change can transpire.

Mutual learning, the second goal of cognitive coaching, is used to involve and change thinking and perceptions using coaching to embrace, enrich, and alter the intellectual functions of teaching. Teachers are required to make decisions before, during, and following instruction. These decisions involve working or applying information in different situations (Costa & Garmston, 2002; Garmson & Costa, 1994).

The third goal of cognitive thinking is holonomy, which is helping teachers learn to be both autonomous and interdependent simultaneously. Garmston and Costa (2002) asserted that:

> Effective teachers are autonomous individuals, self-asserting, self-motivating, and self-modifying, whole in terms of self and yet subordinate to a larger system. However, they are also parts of larger wholes: a department, a school, a district. Teachers become influenced by the norms, attitudes, values, and behaviors of their group. The school is a human organization, which interacts with an even greater unit, the district and community. (p. 123)

Cognitive coaching is an approach that requires the coach to be non-judgmental, to advance reflective practice, and to lead another person to self-directed learning. In order to promote reflection, cognitive coaching centers on a teacher's thinking, perceptions, attitudes, and assumptions and how these affect one's teaching practices. A cognitive coach gathers data and learns to ask questions that aids the teacher in reflective thinking. According to Costa and Garmston (n.d.), a cognitive coach

> "…uses tools of reflective questioning, pausing, paraphrasing, and probing for specificity". A cognitive coach helps another person "to develop expertise in planning, reflecting, problem-solving, and decision-making. It is a reciprocal learning process between both individuals. A good cognitive coach must be able to work effectively with different personality types, different learning styles, different philosophies, and different stages of a teacher's development (para.1).

The types of questions that a cognitive coach might ask depend on the context of the lesson that is being used as the base for engaging the teacher in reflective thinking. Table 5 presents sample conversations that can be used in a cognitive coaching session. The left hand column provides possible cognitive thoughts and processes that are the focus of the cognitive coaching. In the right had column are questions the cognitive coach might use in the coaching session.

Table 5

Sample Conversations used in Cognitive Coaching Sessions

If the desired cognitive thought or process is to:	**Then the coach might ask:**
Planning Conversations	
Describe (State the purpose of the lesson.)	What outcomes do you have in mind for your lesson today?
Envision (Translate the lesson purposes into descriptions of desirable, observable student behaviors.)	As you see this lesson unfolding, what will students be doing?
Predict (Envision teaching strategies and behaviors to facilitate students' performance of desired behaviors.)	As you envision this lesson, what do you see yourself doing to produce those student outcomes?
Sequence (Describe the sequence in which the lesson will occur.)	What will you be doing first? Next? Last? How will you close the lesson?
Estimate (Anticipate the duration of activities.)	As you consider the opening of the lesson, how long do you anticipate that will take?
Define (Formulate procedures for assessing outcomes by envisioning, defining, and setting success indicators.)	What will you see students doing or hear them saying that will indicate to you that your lesson is successful?
Metacogitate (Monitor his or her own behavior during the lesson.)	What will you be aware of in students' reaction to know if your directions are understood?
Self-Assess (Identify a process for personal learning.)	As a professional, what are you hoping to learn about your own practices as a result of this lesson?
Describe (Depict the data-collecting role of the observer.)	What will you want me to look for and give you feedback about while I am in your classroom?
Reflecting Conversation	
Assess (Express feelings about the lesson.)	As you reflect on your lesson, how do you feel it went?

If the desired cognitive thought or process is to:	Then the coach might ask:
Recall and Relate (Recollect student behaviors observed during the lesson to support those feelings.)	What did you see students doing (or hear them saying) that made you feel that way?
Recall (Recollect their own behavior during the lesson.)	What do you recall about your own behavior during the lesson?
Compare (Draw a comparison between student behavior performed with student behavior desired.)	How did what you observe compare with what you planned?
Infer (Abstract meaning from data.)	Given this information, what do you make of it?
Draw Conclusions (Assess the achievement of the lesson purposes.)	As you reflect on the goals for this lesson, what can you say about your students' achievement of them?
Metacogitate (Become aware of and monitor their thinking during the lesson.)	What were you thinking when you decided to change the design of the lesson? OR What were you aware of that students were doing that signaled you to change the format of the lesson?
Infer from Data (Draw hypotheses and explanations from the data provided.)	What inferences might you draw from these data?
Analyze (Examine why the student behaviors were or were not achieved.)	What hunches do you have to explain why some students performed as you had hoped while others did not?
Describe Cause and Effect (Draw casual relationships.)	What did you do (or not do) to produce the results you obtained?
Synthesize (Make meaning from analysis of the lesson.)	As you reflect on this discussion, what big ideas or insights are you discovering?
Self-Assess (Construct personal learning.)	What personal learning did you gain from this experience?
Apply (Prescribe alternative teaching strategies, behaviors, or conditions.)	As you plan future lessons, what insights have you developed that might be carried forth to the next lesson or other lessons?
Evaluate (Give feedback about the effects of this coaching session and the coach's conferencing skills.)	As you think back over our conversation, what has this coaching session done for you? What is it that I did (or didn't) do that was of benefit to you? What assisted you? What could I do different in future coaching?

Adapted from Costa & Garmston (2002). *Cognitive Coaching: A Foundation for Renaissance Schools*.

The cognitive coaching cycle is divided into three components: planning conference, observation of an event, and post-observation conference. Figure 4 presents a graphical presentation of the cognitive coaching cycle.

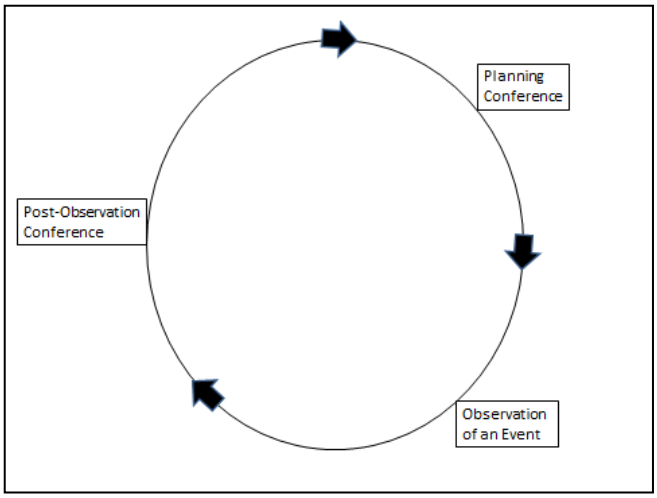

Figure 4: Cognitive Planning Cycle (Costa & Garmston, 2002, p. 43)

The cognitive planning cycle involves four phases within the three components. Table 5 presents the details of each of the phases.

Table 6

Four Phases of Thought in a Coaching Cycle

Planning	Monitoring	Reflecting
1. Planning Coaches mediate by having the planner: • Clarify goals • Specify success indicators and a plan for collecting evidence • Anticipate approaches, strategies, decisions, and how to monitor them • Establish personal learning focus and processes for self-assessment	2. The teacher and the coach observe for: • Indicators of student success • Approaches, strategies, and decisions	3. Analyzing Coaches mediate by having the reflector: • Summarize impressions and recall supporting information • Analyze casual factors, compare, infer, and determine cause-and-effect relationships 4. Applying Coaches mediate by having the reflector: • Construct new learning • Commit to application • Reflect on the coaching process

Costa & Garmston, 2002, p. 44

Cognitive Coaching and the SIOP Model of Instruction

Cognitive coaches are most effective when they are good listeners and respond in ways that are nonjudgmental and nonthreatening. To help build trust and reinforce a positive coaching relationship, effective cognitive coaches make time for teachers by answering questions honestly, responding to concerns quickly, sharing classroom stories, and celebrating progress and successes (Vogt & Shearer, 2007). In the present research study, the cognitive coaching process occurred within study groups without classroom observations. The study group approach allowed the coach to present the eight main components and 30 interrelated features of the SIOP model systematically on a regular basis to ESL staff, and provide them with a research/assessment tool and a standard model for lesson planning and delivery in the context of teaching/learning academic content for English learner students. Figure 5 illustrates the model that was used in the series of SIOP professional development workshops.

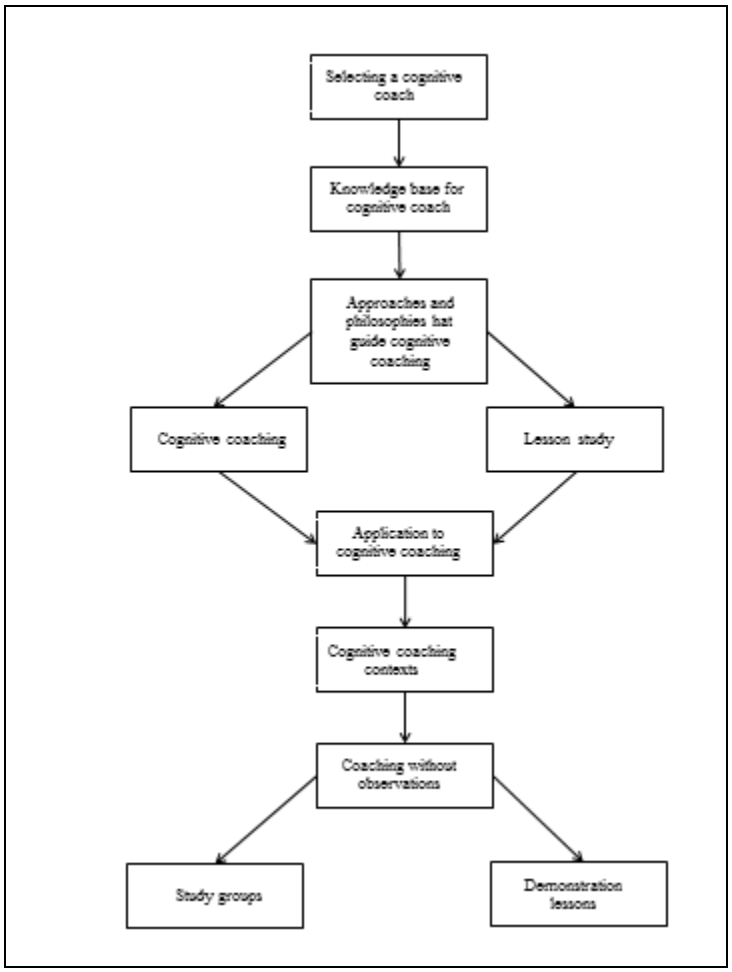

Figure 5: Cognitive Coaching Model

Sheltered Instruction Observation Protocol (SIOP)

The Sheltered Instruction Observation Protocol (SIOP) model of instruction is the product of six years of research sponsored by the National Center for Research on Education, Diversity and Excellence and funded by the Institute for Education Sciences, U.S. Department of Education. Originally, a research instrument, SIOP was modified into lesson planning and instructional system by practicing teachers and researchers. Using this system, classroom teachers are enabled to more effectively teach content area curricula while, at the same time, providing the support for the ELs to improve their English proficiency. Figure 6 represents the model for sheltered instruction (SI).

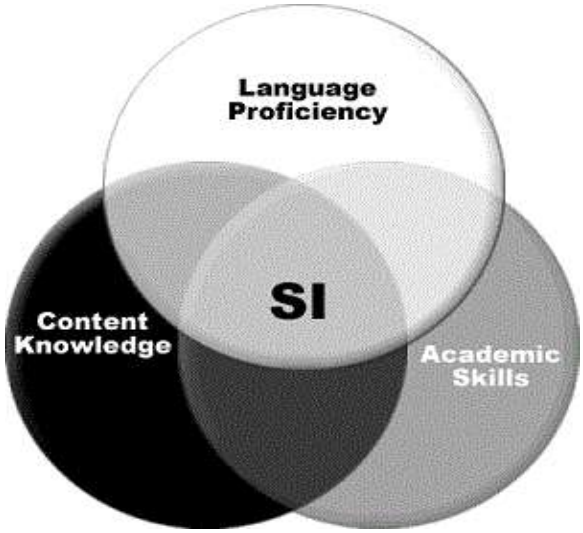

Figure 6: Sheltered Instruction (SI; Professional Learning Board, 2014)

In the SIOP Model, language and content objectives are systematically woven into the grade-level curriculum that teachers present to students through modified instruction in English. Teachers systematically develop students' academic language proficiency as part of their lessons, paying careful attention to the English learners' second language development needs. Figure 7 presents the model that supports SIOP as a means of improving EL student achievement.

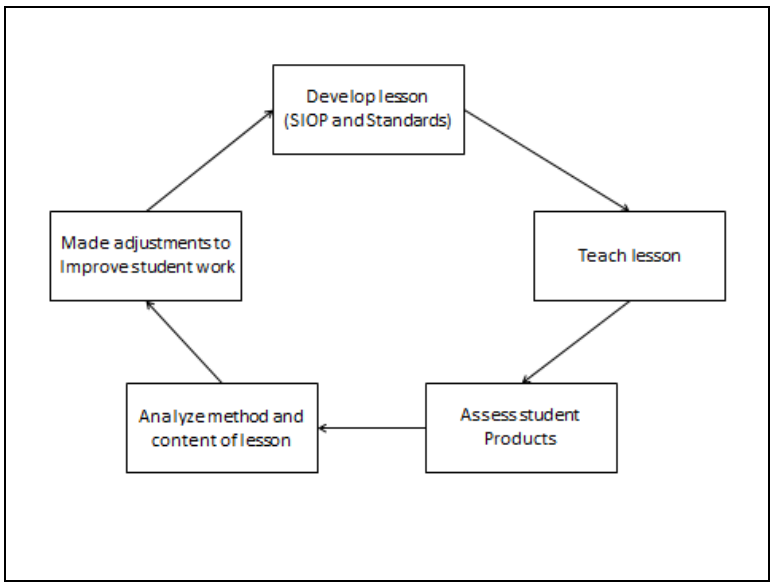

Figure 7: Improving EL Student Achievement (Short & Echevarria, 1999)

The SIOP Model consists of eight (8) interrelated components (see Table 7) with thirty (30) features that, when implemented with fidelity, can increase the performance level for ELs on assessments of English language proficiency (Dooley, 2009; Echevarria, Short, & Powers, 2006; Short, Echevarria, & Richards-Tutor, 2011; Short, Fidelman, & Louguit, 2012).

Table 7

Eight Components of the SIOP Model of Instruction

Component	Feature
1. Lesson preparation	Lesson preparation incorporates the lesson planning process; integrating language and content objectives that are related to the common core standards. This feature allows students to acquire critical experience with meaningful grade-level content and abilities as they obtain fluency in the second language. Additional features of lesson preparation include using supplementary materials and significant instructional activities.
2. Building background	The focus of building background is to make connections with the background experiences and prior knowledge of students while developing their academic vocabulary. The SIOP model of instruction emphasizes the importance of building a comprehensive vocabulary base for students to become efficient readers, writers, speakers, and listeners. Teachers who effectively practice the SIOP model teach essential vocabulary and word structures along with word families, and word relations.
3. Comprehensible input	Comprehensible input involves adjusting teacher speech, and using multiple modalities to improve comprehension (e.g., gestures, pictures, graphic organizers, restating, repeating, reducing the speed of the teacher's presentation, previewing important information, and hands-on activities). The academic assignments need to be clearly explained, with models and examples of exemplary work, so that students can learn the appropriate steps required to achieve the desired result.
4. Strategies	The focus of the strategies component is on explicitly teaching students approaches to learning, so that they discover how to access and retain information. For example, useful reading comprehension strategies need to be modeled and practiced, on an individual basis, with authentic text. In order for students to achieve academic success, teachers in SIOP classrooms should scaffold instruction beginning at the students' performance level and providing support to move them to an increased level of understanding and accomplishment. It is important for teachers to ask critical thinking questions in order for students to put into practice their language skills while simultaneously developing an in-depth understanding of the subject-area.
5. Interaction	The goal of interaction features is to foster specialized speech by properly grouping students for language and content development. Practice with oral language is necessary to help with the development of content knowledge and second-language literacy; consequently, student-to-student interaction is critical and needs to occur on a regular basis in each lesson. It is also important for ELs to exercise important language functions that include confirming information, elaborating on one's own or another's idea, and evaluation opinions.

Component	Feature
6. Practice/application	Practice/application involves activities that promote language and content learning by encouraging students to put into practice the content they are learning, as well as their language skills. It is essential within content learning for students to develop and strengthen their skills in reading, writing, listening, and speaking.
7. Lesson delivery	In lesson delivery SIOP teachers present a lesson that meets the intended planned objectives. The successful delivery of a SIOP lesson includes the following components: content and language objectives were met, the pacing was appropriate, and the students had a high level of engagement.
8. Review/assessment	To effectively implement the review/assessment component, English learners need to reassess key vocabulary and concepts. Moreover, teachers should conduct informal assessments, such as frequently checking for comprehension throughout the lesson to measure how well students understand and retain information. Every SIOP lesson should conclude by allowing for review and assessment and also permitting time to determine whether or not the lesson met its objectives.

A SIOP checklist is available to help ensure that teachers and paraprofessionals plan, deliver, and reflect upon instruction to teach English Learners more effectively. Table 8 presents the checklist developed by Echevarria, Vogt, and Short (2000).

Table 8

Lesson Plan Checklist for Sheltered Instruction Observation Protocol (SIOP)

Components of SIOP	Features
Preparation	• Write content objectives clearly for students. • Write language objectives clearly for students. • Choose content concepts appropriate for age and educational background level of students. • Identify supplementary materials to use (graphs, models, visuals). • Adapt content (e.g., text, assignment) to all levels of student proficiency. • Plan meaningful activities that integrate lesson concepts (e.g., surveys, letter writing, and simulations) with language practice opportunities for reading, writing, listening, and/or speaking.
Building Background	• Explicitly link concepts to students' backgrounds and experiences. • Explicitly link past learning and new concepts. • Emphasize key vocabulary (e.g., introduce, write, repeat, and highlight) for students.
Comprehensible Input	• Use speech appropriate for students' proficiency level (e.g., slower rate, enunciation, and simple sentence structure for beginners). • Explain academic tasks clearly. • Use a variety of techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language).

Components of SIOP	Features
Strategies	• Provide ample opportunities for students to use strategies, (e.g., problem solving, predicting, organizing, summarizing, categorizing, evaluating, self-monitoring). • Use scaffolding techniques consistently (providing the right amount of support to move students from one level of understanding to a higher level) throughout the lesson. • Use a variety of question types including those that promote higher-order thinking skills throughout the lesson (e.g., literal, analytical, and interpretive questions).
Interaction	• Provide frequent opportunities for interactions and discussion between teacher/student and among students, and encourage elaborated responses. • Use group configurations that support language and content objectives of the lesson. Provide sufficient wait time for student response consistently. • Give ample opportunities for students to clarify key concepts in L1 as needed with aide, peer, or L1 text.
Practice/Application	• Provide hands-on materials and/or manipulatives for students to practice using new content knowledge. • Provide activities for students to apply content and language knowledge in the classroom. • Provide activities that integrate all language skills (i.e., reading, writing, listening, speaking).
Lesson Delivery	• Support content objectives clearly • Support language objectives clearly. • Engage students approximately 90-100% of the time (most students taking part/on task). • Pace the lesson appropriately to the students' ability level.
Review/Assessment	• Give a comprehensive review of key vocabulary. • Give a comprehensive review of key content concepts. • Provide feedback to students regularly on their output (e.g., language, content, work). • Conduct assessments of student comprehension and learning throughout the lesson on all lesson objectives (e.g., spot checking, group response).

Source: Reprinted from Echevarria, J., Vogt, M.E., & Short, D. (2000). *Making Content Comprehensible for English Learners: The SIOP Model*. Boston: Allyn & Bacon.

Recalling that the observational instrument was originally used in educational research, the validity and reliability of the Sheltered Instruction Observation Protocol (SIOP) as a measure of sheltered instruction has been established (Guarino, Echevarria, Short, Schick, Forbes, & Rueda, 2001). The SIOP is also used as a model for lesson planning and implementation of high quality sheltered instruction. All features of the SIOP model are aligned with current research on

instruction for English learner (EL) students. Details of the alignment can be found below in Figure 8.

Improving Achievement for English Learners: What Research Tells Us		**SIOP Components**
		Preparation
"EL students benefit from…" • clear goals and objectives • predictable, clear, and consistent instructions, expectations and routines "Providing English-language development instruction and opportunities to extend oral English skills is critical for EL students. This places an increased burden on students and teachers alike, since every lesson should target content and English-language development."		**1.** Content objectives are clearly defined, displayed and reviewed with students **2.** Language objectives are clearly defined, displayed and review **3.** Content concepts appropriate for age and educational background level of students **4.** Supplementary materials used to a high degree, making the lesson clear and meaningful (graphs, models, visuals) **5.** Adaptation of content (e.g., text, assignment) to all levels of student proficiency **6.** Meaningful activities that integrate lesson concepts (e.g., surveys, letter writing, simulations, constructing models) with language practice opportunities for reading, writing, listening, and/or speaking
		Building Background
"Many educators have also suggested that effective instruction for EL students must be tailored to the cultures of the students, that is, incorporate the behavioral and interactional patterns rooted in student's cultures." "What constitutes effective vocabulary instruction for ELs is not well understood; but there can be little doubt that explicit attention to vocabulary development should be part of English learners' school programs." "Their language limitations begin to slow their progress as vocabulary and content knowledge become increasingly important, around the 3rd grade. It is thus critical that, from the very beginning, teachers work to develop these students English-language skills, particularly vocabulary." "With regard to learning to read, English learners benefit from instruction that…" • targets vocabulary • is designed to enhance vocabulary • builds upon students knowledge and skills		**7.** Concepts explicitly linked to students' background experiences **8.** Links explicitly made between past learning and new concepts **9.** Key vocabulary emphasized (e.g., introduced, written, repeated and highlighted for students to see)

Improving Achievement for English Learners: What Research Tells Us	SIOP Components
in their native language	
"EL students benefit from…" • predictable, clear, and consistent instructions, expectations and routines • physical gestures • visual cues • well-designed instructional routines "An important finding from the National Literacy Panel (NLP) was that the impact of instructional interventions is weaker for English learners (ELs) than it is for English-speakers, suggesting that additional supports, or accommodations, are needed in order for ELs to derive as much benefit from effective instructional practices."	**Comprehensible Input** **10.** Speech appropriate for students' proficiency level (e.g., slower rate, enunciation and simple sentence structure for beginners) **11.** Clear explanation of academic tasks **12.** A variety of techniques used to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)
"EL students benefit from…" • extended explanations • redundant information • consolidating text knowledge through summarization "Academic instruction in the students' home language should be part of the educational program for English learners, if at all possible." "The NLP found that teaching reading skills in the first language is more effective in terms of second language achievement than immersing children in English." "Primary language instruction can boost student achievement in the second language by about 12 to 15 percentile points." "Evidence suggests that literacy and other skills and knowledge transfer across languages; if you learn something in one language, you either know it or can easily learn it in a second language."	**Strategies** **13.** Ample opportunities provided for student to use strategies **14.** Scaffolding techniques consistently used throughout lesson, assisting and supporting student understanding such as think-alouds **15.** A variety of questions or tasks that promote higher-order thinking skills (e.g., literal, analytical, and interpretive questions)
"EL students benefit from…" • active engagement and participation • opportunities to interact with other students • strategic use of primary language • focusing on the similarities/differences between English and the native language • paraphrasing students remarks and encouraging expansion • identifying and clarifying difficult words and passages	**Interaction** **16.** Frequent opportunities for interactions and discussion between teacher/student and among students, which encourage elaborated responses about lesson concepts **17.** Grouping configurations support language and content objective of the lesson

Improving Achievement for English Learners: What Research Tells Us	SIOP Components
	18. Sufficient wait time for student responses consistently provided **19.** Ample opportunities for students to clarify key concepts in L1
"Writing instruction also makes a contribution to ELs literacy development." "Providing English-language development instruction and opportunities to extend oral English skills is critical for EL students." "EL students benefit from…" • providing extra practice in reading words, sentences, and stories • additional opportunities for practice • opportunities to practice and apply new learning and transfer it to new situations	**Practice and Application** **20.** Hands-on materials and/or manipulatives provided for students to practice using new content knowledge **21.** Activities provided for students to apply content and language knowledge in the classroom **22.** Activities integrate all language skills (i.e., reading, writing, listening, and speaking)
"EL students benefit from…" • clear goals and objectives • predictable, clear, and consistent instructions, expectations and routines • active engagement and participation • well-designed instructional routines	**Lesson Delivery** **23.** Content objectives clearly supported by lesson delivery **24.** Language objectives clearly supported by lesson delivery **25.** Students engaged approximately 90-100% of the class period **26.** Pacing of the lesson appropriate to the students' ability level
"EL students benefit from…" • information feedback • periodic review and practice • frequent assessments, and re-teaching as needed • checking comprehension frequently	**Review / Assessment** **27.** Comprehensive review of key vocabulary **28.** Comprehensive review of key content concepts **29.** Regular feedback provided to students on their output (e.g., language, content, work) **30.** Assessment of student comprehension and learning of all lesson objectives (e.g., spot checking, group response) throughout the lesson

Figure 8: Alignment of Research with SIOP Components (Echevarria, Short, & Vogt, 2008, p. 187-190)

Teachers who implement the SIOP model do not need to abandon their preferred method of instruction nor do they need to supplement a lot of new components to a lesson. Instead, this model of sheltered instruction starts with the prescribed curricula and provides the teacher with multiple options in how to teach these curricula to ELs. SIOP acts as an umbrella, allowing teachers the flexibility to choose techniques they know work well with their particular group of students (see Figure 9). Teachers must pay particular attention to the language development needs of their students, and select appropriate instructional strategies that facilitate the integration of district and/or state-level standards for ESL education programs, as well as specific content areas (Echevarria, Vogt, & Short, 2004).

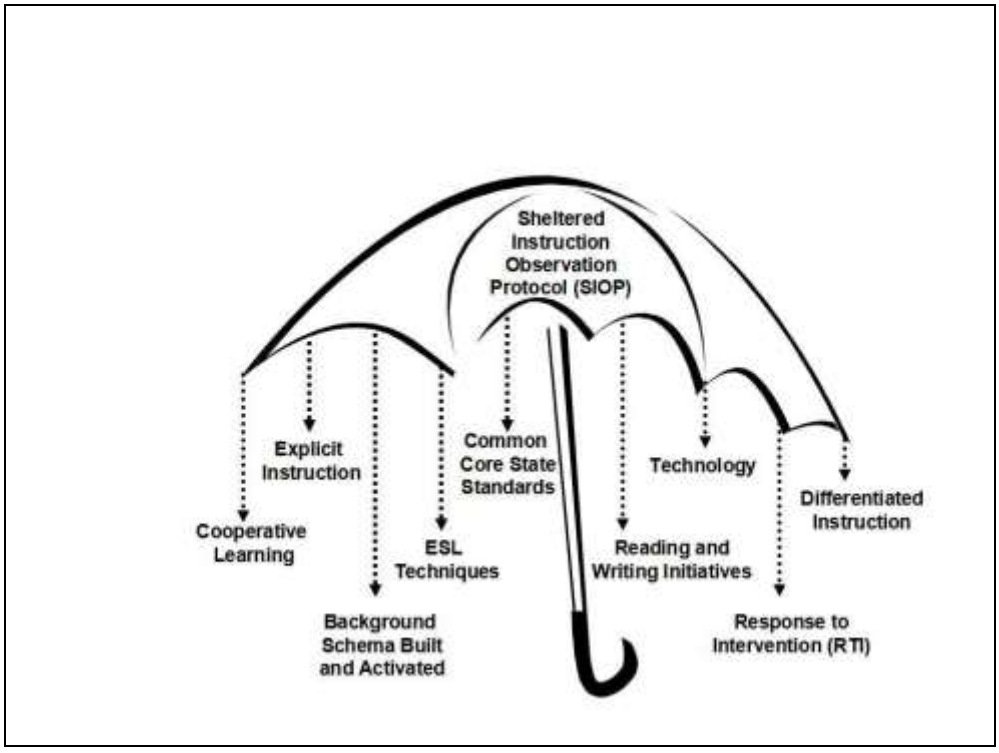

Figure 9: The SIOP Model Framework for Organizing Best Practices

Empirical Research on SIOP

Several research articles have been published on the efficacy of the SIOP model in providing EL students with English language instruction. Batt (2010) conducted a study to determine the efficacy of professional development using the SIOP model developed by Echevarria, Vogt, and Short. She was interested in determining how cognitive coaching can be used in conjunction with the SIOP model to provide instruction to ELs. Fifteen general education elementary teachers with a majority of both minority and EL students participated in a summer workshop for SIOP. Both quantitative and qualitative data were collected, including knowledge, test results, surveys, and interviews. The findings indicated that the 15 coached teachers' practice improved as they developed knowledge, skills, and strategies for teaching ELs. The coaching process provided positive experiences, with teachers perceiving collegiality, reflection, and confidence improved as a result of being coached. However, implementation of the SIOP was considered low (53%) before coaching. After coaching, 100% of the teachers implemented SIOP in their classes and teachers reported positive effects on their students' learning as a result. Based on her findings, Batt (2010) concluded that professional development is not enough to change teacher practices. The addition of cognitive coaching provides the impetus for teachers to make changes to improve student learning with the SIOP model.

Case Study – Lela Alston Elementary School, Phoenix, Arizona

Lela Alston Elementary School is located within the Isaac School District in Phoenix, Arizona. The native languages of the 450 students at this particular K-3 school included 65% English learners. The languages served at Lela Alston Elementary School include Spanish, Arabic, Mandarin, and Other Non-Indian groups. As a high poverty school, 91% of the school's

students participated in the free and reduced lunch program compared to the state average of 49%.

In 2002, the principal of Lela Alston Elementary School in Phoenix, Arizona agreed to train the entire staff in the Sheltered Instruction Observation Protocol (SIOP) model of instruction using cognitive coaching. The staff at Lela Alston committed to ongoing professional development for two years (2002 to 2003 and 2003 to 2004) by focusing on one component per nine-week quarter. Cognitive coaches worked with grade-level teacher teams and modeled lessons in teachers' classrooms to make certain that each teacher fully understood all eight components and 30 features of the SIOP model. Workshops were conducted in various forms, such as full staff development days, half-day sessions, after school make-and-take gatherings, and staff meetings.

The Arizona Instrument for Measuring Standards (AIMS) is the statewide standardized assessment in Arizona (Echevarria & Short, 2010). Since implementation of the SIOP model at Alston School, students' scores improved steadily over three years and the students at Alston outperformed similar students at three neighboring elementary schools in reading, writing, and math. Some third-grade students had been in SIOP-based classes since they had been in kindergarten. These students showed the most dramatic improvement in the entire study, with 86% achieving at or above their grade level on the state assessment. (See Table 9).

Table 9

AIMS Scores on Spring 2005 Assessment of Third-Grade Students Who Began Kindergarten at Alston School in 2001

Performance Outcomes	Percent
Above Grade Level	36
At Grade Level	50
Below Grade Level	14

Figure 10 shows the average performance of students at Lela Alston Elementary School in Phoenix, Arizona on the state assessment, the AIMS, over three years in reading, mathematics, and writing. The progress is substantial because it reflects considerable growth in student achievement as a result of an on-going two-year school-wide SIOP professional development initiative using cognitive coaching beginning in 2002. As indicated in Figure 10, the 2002 student cohort averaged below 50% on all measures while the 2004 cohort reached close to 60% or above.

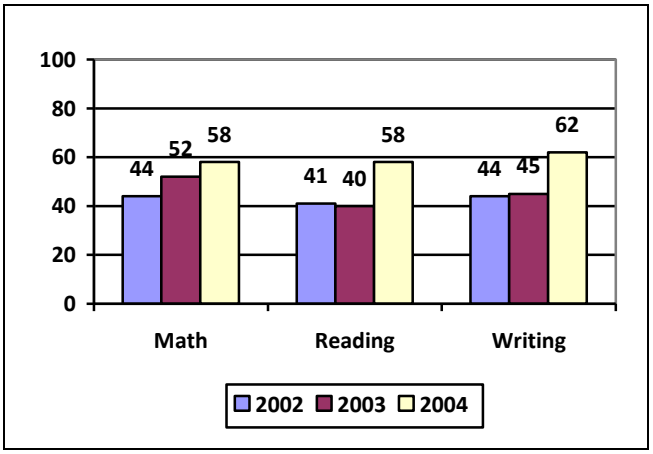

Figure 10: Lela Alston's Average Student Performance on State Tests, 2002-2004

Case Study – Charlotte-Mecklenburg Schools in Charlotte, North Carolina

Charlotte-Mecklenburg School (CMS) District in Charlotte, North Carolina is the largest school district in North Carolina, and is one of the fastest-growing districts in the United States

in terms of English learner (EL) student enrollment (Echevarria, Short & Vogt, 2008). Charlotte-Mecklenburg Schools is a large urban district consisting of 161 schools and serves more than 132,000 students, Pre-K through grade 12. More than 10,800 students were identified as English learners in the 2005-2006 school year. These EL students came from more than 152 different countries, and they spoke 97 different native languages. Forty-five percent of the student body in the Charlotte-Mecklenburg School District qualifies for the free or reduced lunch program.

In the 2004-2005 school-year, the Charlotte-Mecklenburg Schools made a commitment to implement the SIOP model of instruction through the use of cognitive coaching to address the lack of success on numerous standardized measures by EL students (Echevarria et al., 2008). The Center for Applied Linguistics (CAL) developed an extensive professional development series for this district, including SIOP workshops for Pre-K, elementary and secondary teachers new to the model, *Review and Renew* workshops tailored to specific grade levels (elementary vs. secondary) and content area workshops (Math and Science, Social Studies, English Language Arts), professional development for curriculum and instructional staff to use the SIOP to support the literacy demands of the Common Core State Standards, workshops on SIOP guided lesson design, and consultations for SIOP coaches and administrators.

In the 2005-2006 school year, the Charlotte-Mecklenburg Schools hired the Praxis Research group to perform a formative evaluation of SIOP implementation through the use of in-school cognitive coaching (Echevarria et al., 2008). As part of that effort, the researchers observed SIOP and non-SIOP teachers and rated their instructional strategies based on the SIOP protocol. Trend data showed that students with limited English proficiency who received instruction in a classroom with a SIOP-trained teacher performed better on state end-of-year

reading and mathematics standardized tests than comparable students who were in classrooms with non-SIOP-trained teachers.

Echevarria and Short (2011) examined a school-wide comprehensive intervention to provide assistance to ELs across the core curriculum. A study of science instruction in 7th grade was conducted in eight schools, with five assigned to the intervention group and three comprising the comparison group. Teachers in the treatment group participated in professional development on SIOP for one semester. Coaches visited the classrooms on several different days. Following each of these observations, the coaches provided the teachers with feedback. Both the treatment and comparison group teachers taught the same four units, using the same textbooks. The comparison group teachers developed their own lesson plans and teaching strategies, and received no coaching. The teachers in both groups were observed and their teaching was assessed by the coaches. The results indicated that students taught by teachers who had participated in the SIOP training performed better in science than students whose teachers were in the comparison group. Echevarria and Short also reported on additional studies in Quality English and Science Teaching (QuEST), with similar outcomes.

Based on the findings of these studies, Echevarria, Richards-Tutor, Canges, and Francis (2011) conducted a school-wide intervention to support the efficacy of the use of SIOP across the curriculum. Twelve teachers at eight schools who taught science to seventh grade students were included in the study. The teachers were randomly assigned to the treatment and comparison groups, with the teachers in the treatment group participating in a professional development workshop that lasted for three days to provide information to the teachers about the needs of ELs and the framework of SIOP. Teachers in the treatment group also received support in how to implement the suggested strategies. The teachers in the comparison group provided

instruction as usual without SIOP training. Both groups were observed for research purposes, but were not provided with feedback. Echevarria et al. found statistically significant differences in student performance for all curriculum units of the study. The students with different levels of English proficiency differed, with those with limited English skills scoring the lowest. Students who had been reclassified as English proficient scored higher than native English speakers, although this difference was not statistically significant. The students taught in SIOP classes had higher scores when given standardized, curriculum-based tests than those in the control classrooms, although these differences were not statistically significant. Echevarria et al. indicated that the small number of schools (n = 8) and teachers (n = 12) may have contributed to the lack of significant differences. The researchers also indicated that a 3-day training in the SIOP model may not have been sufficient. Some teachers were enthusiastic about SIOP, while others were performing at minimum levels. These limitations may have contributed to the lack of significance among groups. In the second year of the study, teachers in three of the comparison schools participated in professional development and began to teach using the SIOP model.

Summary

Literacy instruction for ELs is important because of their growing presence in schools in the United States. ELs are overrepresented in the groups of students who are struggling academically (McCardle et al., 2005). A primary factor in the low scholastic performance of ELs is the role of academic language in literacy and learning. Academic language proficiency is especially challenging for ELs, because they are acquiring English at the same time that their coursework requires an increase level in the use of the English language. Many theories have been developed for second language acquisition. Cummins (1979) studied the nature of language proficiency and second language acquisition, emphasizing social and academic barriers that

could limit success for culturally diverse students. According to Cummins, the iceberg theory is comprised of basic interpersonal communication skills and cognitive academic language proficiency. Krashen's (2009) five hypotheses claimed several factors operating in the acquisition process. Krashen and Terrell (as cited in Hill & Flynn, 2006) noted that language acquisition occurs in five stages: reproduction, early production, speech emergence, intermediate fluency, and advanced fluency.

Language instructional programs have evolved over the years, with different models evolving. Some models include English as a second language instruction, content-based ESL, sheltered instruction, transitional bilingual education, developmental bilingual education, two-way immersion, and newcomer. All of these models have been used with more or less success.

Professional development is defined as a comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement. Extensive research has been published on professional development (e.g., Darling-Hammond; Guskey; Loucks-Horsley, et al., Bailower et al.). Most states require all teachers to participate in professional development at their local schools, school districts, and at external locations. In Michigan, the intermediate school districts offer professional development for teachers on a myriad of topics. Guskey (2002) developed five hierarchical levels of professional development: participant reaction, participation learning, organizational support and learning, participant use of new knowledge and skills; and student learning results. He asserts that the goal of professional development programs should focus on (a) altering teachers' classroom practices, (b) altering attitudes and beliefs of teachers, and (c) altering students' learning outcomes to improve student achievement.

Cognitive coaching is an approach for professional development that is used to enhance an individual's capacity for self-directed learning through self-management, self-monitoring, and self-modification. Ulrich and Johnson (2011) indicated that there are five coaching archetypes: self-coaching, peer coaching inside the organization, peer coaching outside of the organization, boss coaching, and expert coaching. Cognitive coaching influences another person's thought processes. Cognitive coaching is systematic, rigorous, and data-based, with three goals: trust, mutual learning, and holonomy (being both autonomous and interdependent simultaneously).

The sheltered instruction observation protocol (SIOP) model of instruction evolved from six years of research sponsored by the National Center for Research on Education, Diversity, and Excellence and was funded by the Institute for Education Sciences, U.S. Department of Education. Teachers using the SIOP model develop students' academic language proficiency as part of their everyday content-area lessons, paying attention to the English learners' second language development needs. SIOP has been the focus of empirical research that has provided substantial evidence that this process is a viable method for helping ELs master English while working on content.

The purpose of the present study is to determine if ESL teachers and ESL paraprofessionals working in a single school district understand SIOP and have implemented it in their classrooms. The ESL teachers and ESL paraprofessionals have participated in a series of professional development workshops on SIOP that incorporated the principles of cognitive coaching. The methods used in carrying out this study are described in Chapter 3; the results of the statistical analyses are revealed in Chapter 4. Chapter 5 presents the conclusions and recommendations based on a synthesis of the literature and the findings of the study.

CHAPTER 3

METHODOLOGY

This chapter presents the methods that were used in this study to collect and analyze the data needed to address the research questions posed for the study. This chapter is divided into the following sections: restatement of the problem, research design, setting for the study, participants, instrumentation, data collection procedures, and data analysis.

Restatement of the Purpose

The purpose of this study was to describe (examine) how English as a second language (ESL) teachers and ESL paraprofessionals perceive their experiences with cognitive coaching and their implementation of sheltered instruction observation protocol (SIOP) with their English learner (EL) students.

Research Design

A non-experimental, ex post facto research design was used to examine perceptions of ESL teachers and ESL paraprofessionals regarding their experiences with cognitive coaching and their implementation of SIOP with their EL students. The use of the ex post facto research design was most appropriate because surveys and questionnaires were used to collect data and there were no interventions or treatment being provided to the participants. In the past two years, ESL teachers and ESL paraprofessionals attended a series of professional development workshops on the SIOP model of instruction. As part of their participation in the professional development, self-reflection data were collected at the end of the professional development series. This study examined ESL teachers' and ESL paraprofessionals' views about their participation in the program, the use of cognitive coaching, and the implementation of SIOP in their classrooms.

Setting for the Study

The setting for this study was an urban school district where a series of professional development workshops were conducted for ESL teachers and ESL paraprofessionals to understand and use the SIOP model of instruction with English learner (EL) students through the use of cognitive coaching. A total of 4,674 students are enrolled in K-12 classes in the school district. All students qualify for free or reduced lunch. Many ethnic groups are represented in the school district, with approximately 1,500 students participating in the ESL Education Program. The majority of these EL students are Hispanic, although students from other cultures also are represented in the ESL Education Program. ESL teachers incorporate the "Pull-Out" ESL method of instruction in which EL students are removed from the general education classes to pre-teach, teach, or re-teach English language skills and/or academic content covered by the general education classroom teacher.

Participants

Nine ESL teachers and 44 ESL paraprofessionals participated in the study. ESL staff participated in a series of 12 professional development workshops designed to provide cognitive coaching and information on the use of the SIOP model of instruction with EL students. These teachers and paraprofessionals were employed in an urban school district and work with EL students in grades K through 12.

Instrumentation

The ESL teachers and ESL paraprofessionals completed a three-part survey designed to evaluate the SIOP workshops. The survey collected information on how English as a second language (ESL) teachers and ESL paraprofessionals perceived their experiences with cognitive coaching and their implementation of the sheltered instruction observation protocol (SIOP)

model of instruction with their English learner (EL) students. Part one of the survey collected demographic information from the ESL staff participants. The second part of the survey consisted of 11 items that examined the outcomes and the added value of cognitive coaching following SIOP institute attendance, ongoing school training sessions, and a substantial practice and application period monitored at each school. A factor analysis using a varimax rotation was used to determine if subscales would emerge that could be used to examine specific concepts of cognitive coaching. Table 10 displays the results of the principal components factor analysis.

Table 10

Principal Components Factor Analysis – Cognitive Coaching

Subscale	Coaching Process	Post-implementation	Problems with Implementation
Coaching Process			
4	.87		
6	.82		
5	.82		
8	.74		
7	.73		
1	.63		
Post-implementation			
11		.87	
10		.86	
9		.81	
Problems with Implementation			
2			.93
3			.92
Eigenvalues	4.94	2.11	1.29
Percent of Explained Variance	44.95	19.15	11.76
Cronbach Alpha Coefficients	.89	.85	.85

Three factors, coaching process, post-implementation, and problems with implementation, emerged from the factor analysis accounting for 75.8% of the variance in cognitive coaching. The eigenvalues for each of the factors were greater than 1.00, indicating

that each factor was accounting for a statistically significant amount of variance in the latent variable, cognitive coaching. The alpha coefficients for the three factors ranged from .85 for post-implementation and problems with implementation and .89 for coaching process. The alpha coefficient for the total scale was .84. These results indicated that the instrument had good internal consistency as a measure of reliability. The three factors that emerged from the factor analysis were used as subscales in the statistical analysis used to test the hypotheses and address the research questions.

Lastly, part three of the survey comprised a self-assessment component of the SIOP model of instruction. The original survey was developed by Batt (2010) in her study of professional development for SIOP and the importance of cognitive coaching. The surveys were administered after completion of a series of SIOP workshops.

The second and third part of the survey pertaining to cognitive coaching and SIOP were rated using a 4-point Likert scale. A neutral point was not provided. Using the numeric values associated with the ratings, a mean score was calculated for each scale that reflected the original unit of measure. The use of a mean score allowed direct comparison across subscales with different numbers of items.

Part three of the survey was a self-assessment that was used to obtain information on the implementation of SIOP by selected ESL teachers and ESL paraprofessionals who participated in a series of 12 workshops. This third part of the survey measured the eight interrelated components of the SIOP model of instruction that included: lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment.

The items in part three of the survey were rated using a 4-point Likert scale ranging from 1 for never to 4 for daily. The use of a mean score calculated from the numeric ratings allowed direct comparison across the components to determine the extent to which they were being implemented in the classroom. Part three of the survey had not been tested for reliability. Cronbach alpha coefficients were used to determine the internal consistency of the separate components of the SIOP model of instruction. Results of the Cronbach alpha tests for internal consistency are presented in Table 11.

Table 11

Internal Consistency for Implementation of SIOP

Subscale	*N*	Alpha
Preparation	53	.81
Building background	52	.83
Comprehensible input	53	.88
Strategies	53	.84
Interaction	52	.75
Practice application	52	.88
Lesson delivery	51	.82
Review and assessment	53	.86

The Cronbach alpha coefficients ranged from .75 for interaction to .88 for comprehensible input and practice application. These findings provided support that the eight subscales measuring the components of the SIOP program had good internal consistency as a measure of reliability.

Data Collection

The data collection process began following approval from the Institutional Review Board of Wayne State University. Survey packets were assembled and included a research information sheet. The research information sheet included all topics of an informed consent form. This sheet, however, did not require a participant's signature. Instead, the return of the completed survey was evidence of the teachers' and paraprofessionals' willingness to participate in the study.

The ESL teachers and ESL paraprofessionals who participated in the series of professional development workshops received a survey packet at their final session of the SIOP workshop. They were asked to complete the survey prior to leaving the workshop. Participants were instructed to refrain from placing any identifying information on the surveys. After completing the survey, the teachers and paraprofessionals placed the survey in the envelopes in which they were distributed, sealed them, and returned them to the facilitator. Due to the researcher having a position of authority in the school district, he was not involved in the data collection process.

All surveys were completed at the final session of the SIOP workshop. ESL teachers and ESL paraprofessionals who were not in attendance on the day of the workshop were asked to complete the surveys in their classrooms.

Data Analysis

The data obtained from the participants were entered into a computer file and the analysis was performed using IBM-SPSS ver. 22. The data analysis was divided into three parts. The first section used frequency distributions and measures of central tendency and dispersion to yield a profile of the participants. The second section used descriptive statistics to establish baseline information on the scaled variables. The last section of the analysis used inferential statistical

analyses, including Pearson product moment correlations and multiple linear regression analyses, to address the research questions posed for the study. For all decisions on the statistical significance of the findings, alpha level .05 was used. Table 12 presents the statistical analyses that were used to address each research question and test the hypotheses.

Table 12

Statistical Analyses

Research Questions and Hypotheses	Variables	Statistical Analyses
1. To what extent do ESL teachers and ESL paraprofessionals perceive that participation in cognitive coaching has influenced their knowledge of SIOP? H_1: ESL teachers and ESL paraprofessionals perceive that participation in cognitive coaching has influenced their knowledge of SIOP. H_{01}: ESL teachers and ESL paraprofessionals do not perceive that participation in cognitive coaching has influence their knowledge of SIOP.	Dependent Variable Knowledge of SIOP Independent Variables coaching process evaluation coaching implementation evaluation	A multiple linear regression analysis was used to determine if teachers' evaluations of the coaching process and coaching implementation could predict their knowledge of SIOP.
2. To what extent have ESL teachers and ESL paraprofessionals implemented SIOP in their classrooms? H_2: ESL teachers and ESL paraprofessionals have implemented SIOP in their classrooms. H_{02}: ESL teachers and ESL paraprofessionals have not implemented SIOP in their classrooms.	Dependent Variable Implementation of SIOP in classrooms Independent Variable coaching process evaluation coaching implementation evaluation	A multiple linear regression analysis was used to determine if teachers' self-report of the implementation of SIOP in their classrooms could predict their evaluations of the coaching process and post-coaching implementation.

Research Questions and Hypotheses	Variables	Statistical Analyses
3. Which of the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) have ESL teachers and ESL paraprofessionals implemented in their classrooms? H_3: ESL teachers and ESL paraprofessionals are implementing the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) in their classrooms. H_{03}: ESL teachers and ESL paraprofessionals are not implementing the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) in their classrooms.	Dependent Variable Implementation of SIOP in classrooms Independent Variable Components of SIOP • lesson preparation • building background • comprehensible input • strategies • interaction • practice and application • lesson delivery • review and assessment	A multiple linear regression analysis was used to determine which of the components of SIOP could predict implementation of SIOP in classrooms

CHAPTER 4

RESULTS OF DATA ANALYSIS

Chapter 4 presents the results of the data analyses that were used in describing the sample and addressing the research questions. The first part presents a profile of the participants, the second presents baseline data on the scaled variables, and the third part presents the results of the hypotheses testing.

The purpose of this study was to describe how English as a Second Language (ESL) teachers and ESL paraprofessionals perceive their experiences with professional development workshops focusing on cognitive coaching and the implementation of the Sheltered Instruction Observation Protocol (SIOP) Model of Instruction with their ESL students.

A total of 9 ESL teachers and 44 ESL paraprofessionals participated in a series of professional development workshops on Sheltered Instruction Observation Protocol (SIOP) and cognitive coaching. At the last meeting, the 53 participants completed the survey to measure their perceptions of cognitive coaching and implementation of SIOP in their classrooms.

Description of the Sample

The participants completed a short demographic survey to obtain their personal and professional background to help form a participant profile. Table 13 presents the frequency distributions of the participants' personal characteristics of age and gender.

Table 13

*Frequency Distributions: Personal Characteristics (*N = *53)*

Personal Characteristics	Number	Percent
Age		
Under 25	8	15.1
26 to 35	4	7.5
36 to 50	23	43.4
Over 50	18	34.0
Gender		
Male	13	25.0
Female	39	75.0
Missing 1		

The largest group of participants (*n* = 23, 43.4%) indicated their ages were between 36 and 50 years, with 18 (34.0%) reporting their ages were over 50 years. Eight (15.1%) of the participants were under 25 years and 4 (7.5%) were between 26 and 35 years. The majority of the participants (n = 39, 75.0%) were female. The remaining 13 (25.0%) participants were male.

The participants provided information regarding their professional characteristics (education, years of teaching experience, and grade level taught). The results of the frequency distributions are presented in Table 14.

Table 14

*Frequency Distributions: Professional Characteristics (*N = *53)*

Professional Characteristics	Number	Percent
Educational level		
High school	14	28.0
Associate degree	5	10.0
Bachelor degree	18	36.0
Master degree	13	26.0
Missing 3		
Years of teaching experience		
1 to 5 years	19	38.8
6 to 10 years	12	24.5
11 to 20 years	10	20.4
Over 20 years	8	16.3
Missing 4		
Grade levels taught		
K – 6	39	73.6
7 – 9	7	13.2
10 – 12	7	13.2

Eighteen (36.0%) participants had completed bachelor degrees, with 13 (26.0%) reporting that they had obtained a master's degree. Fourteen (28.0%) participants had a high school diploma and 5 (10.0%) had associate's degrees. Three participants did not answer this question.

The largest group of participants (n = 19, 38.8%) had 1 to 5 years of teaching experience and 12 (24.5%) had 6 to 10 years of experience. Ten (20.4%) had 11 to 20 years of experience and 8 (16.3%) had over 20 years. Four participants left this question unanswered.

The majority of participants (n = 39, 73.6%) were working in the elementary school (grades K to 6). Seven (13.2%) were teaching in the middle school (grades 7 to 8) or high school (grades 9 to 12).

Scaled Variables

The subscales for cognitive coaching and the SIOP questionnaires were scored to obtain mean scores. The scores could range from 1 to 4, with a 4 representing a positive perception on the subscales. The results of the descriptive statistics are presented in Table 15.

Table 15

Descriptive Statistics – Scaled Variables

					Range	
Subscale	*N*	*M*	*SD*	Median	Minimum	Maximum
Cognitive Coaching						
Cognitive coaching process	52	3.25	.58	3.17	1.00	4.00
Post-implementation	51	2.88	.74	3.00	1.17	4.00
Problems with implementation	51	2.61	.72	3.00	1.00	4.00
Total Score	52	3.04	.48	3.09	2.00	4.00
SIOP						
Preparation	53	3.50	.46	3.67	2.33	4.00
Building background	53	3.47	.63	3.67	1.67	4.00
Comprehensible input	53	3.65	.46	4.00	2.33	4.00
Strategies	53	3.34	.58	3.33	2.00	4.00
Interaction	53	3.49	.48	3.50	2.25	4.00
Practice and application	52	3.31	.67	3.33	1.00	4.00
Lesson delivery	53	3.51	.51	3.75	2.00	4.00
Review and assessment	53	3.63	.49	4.00	2.00	4.00
Knowledge of SIOP	53	3.49	.43	3.55	2.36	4.00

The mean scores for cognitive coaching ranged from 2.61 (*sd* = .72) for problems with implementation to 3.25 (*sd* = .58) for coaching process. The overall mean score for cognitive coaching was 3.04 (*sd* = .48), with a median of 3.09. The range of actual scores for the overall cognitive coaching score was from 2.00 to 4.00. The mean scores for the 8 SIOP subscales ranged from 3.31 (*sd* = .67) for practice and application to 3.65 (*sd* = .46) for comprehensible input. No total score for the instrument was calculated.

A correlation matrix of the scaled variables was obtained using Pearson product moment correlations. Table 16 presents the results of the correlation matrix.

Table 16

Correlation Matrix: Cognitive Coaching and SIOP Questionnaires

	1	2	3	4	5	6	7	8	9	10	11	12
1	–											
2	-.06	–										
3	.18	.47**	–									
4	.31*	.86**	.79**	–								
5	.17	.24	.47**	.41**	–							
6	.13	.25	.31*	.35**	.56**	–						
7	.28*	.04	.03	.13	.59**	.50**	–					
8	.17	.15	.33*	.30*	.71**	.68**	.56**	–				
9	.23	.04	.15	.17	.64**	.72**	.60**	.71**	–			
10	.12	.26	.50**	.41**	.62**	.57**	.35*	.68**	.55**	–		
11	.18	.24	.38**	.39**	.73**	.57**	.71**	.65**	.65**	.59**	–	
12	.21	.02	.13	.13	.64**	.65**	.71**	.57**	.65**	.40**	.81**	–

Note: 1 – problems with implementation; 2 – cognitive coaching process; 3 – post-implementation; 4 – cognitive coaching (total score); 5 – preparation; 6 – building background; 7 – comprehensible input; 8 – strategies; 9 – interaction; 10 – practice and application; 11 – lesson delivery; 12 – review and assessment
**$p \leq .01$; * $p \leq .05$

Research Questions and Hypotheses

Three research questions and associated hypotheses were developed for the study. Each of these questions was addressed using inferential statistical analyses. All decisions on the statistical significance of the findings were made using a criterion alpha level of .05.

Research question 1. To what extent do ESL teachers and ESL paraprofessionals perceive that participation in cognitive coaching has influenced their knowledge of SIOP?

H_1: ESL teachers and ESL paraprofessionals perceive that participation in cognitive coaching has influenced their knowledge of SIOP.

H_{01}: ESL teachers and ESL paraprofessionals do not perceive that participation in cognitive coaching has influence their knowledge of SIOP.

A stepwise multiple linear regression analysis was used to determine if ESL teachers and ESL paraprofessionals' knowledge of SIOP could be predicted from the three subscales, problems with implementation, cognitive coaching process, and post implementation, measuring cognitive coaching. The results of this analysis are presented in Table 17.

Table 17

Stepwise Multiple Linear Regression Analysis – Knowledge of SIOP

Predictor Variable	Constant	*b*-Weight	*β*-Weight	ΔR^2	*t*-Value	Sig
Included Variables						
Post-implementation	2.91	.20	.08	.11	2.51	.015
Excluded Variables						
Problems with implementation			.16		1.17	.249
Cognitive coaching process			.06		.39	.695

Multiple R	.33
Multiple R^2	.11
F Ratio	6.31
DF	1, 51
Sig	.015

One predictor variable, post-implementation, entered the stepwise multiple linear regression analysis, accounting for 11% of the variance in the criterion variable, knowledge of SIOP, F (1, 51) = 6.31, p = .015. The other two predictor variables, problems with implementation and coaching process, did not enter the stepwise multiple linear regression analysis, indicating they were not statistically significant predictors of knowledge of SIOP. Based on the findings of this analysis, the null hypothesis is rejected.

Research question 2. To what extent have ESL teachers and ESL paraprofessionals implemented SIOP in their classrooms?

H_2: ESL teachers and ESL paraprofessionals have implemented SIOP in their classrooms.

H_{02}: ESL teachers and ESL paraprofessionals have not implemented SIOP in their classrooms.

A stepwise multiple linear regression analysis was used to determine if the three subscales measuring cognitive coaching could predict the implementation of SIOP in their classroom. Perceptions of the implementation of SIOP were used as the criterion variable in this analysis. Table 18 presents results of the stepwise multiple linear regression analysis.

Table 18

Stepwise Multiple Linear Regression Analysis – Implementation of SIOP

Predictor Variable	Constant	*b*-Weight	*β*-Weight	ΔR^2	*t*-Value	Sig
Included Variables						
Post-implementation	2.84	.23	.37	.14	2.82	.007
Excluded Variables						
Problems with implementation			.15		1.15	.257
Cognitive coaching process			.01		.05	.961

Multiple R	.37
Multiple R^2	.14
F Ratio	7.93
DF	1, 51
Sig	.007

One predictor variable, post-implementation, entered the stepwise multiple linear regression analysis, explaining 14% of the variance in the criterion variable, implementation of SIOP, F (1, 51) = 7.93, p = .007. The remaining two predictor variables, problems with implementation and cognitive coaching process, did not enter the stepwise multiple linear regression analysis, indicating they were not statistically significant predictors of implementation of SIOP. Based on these findings, the null hypothesis was rejected.

Research question 3. Which of the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) have ESL teachers and ESL paraprofessionals implemented in their classrooms?

H_3: ESL teachers and ESL paraprofessionals are implementing the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) in their classrooms.

H_{03}: ESL teachers and ESL paraprofessionals are not implementing the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) in their classrooms.

One subscale of perceptions of cognitive coaching, post-implementation, was used as the criterion variable in a stepwise multiple linear regression analysis. The predictor variables in this analysis were the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment). Table 19 presents results of this analysis.

Table 19

Stepwise Multiple Linear Regression Analysis – Post-implementation of SIOP

Predictor Variable	Constant	*b*-Weight	*β*-Weight	ΔR^2	*t*-Value	Sig
Included Variables						
Practice and application	1.04	.55	.50	.25	4.15	<.001
Excluded Variables						
Preparation			.23		1.53	.132
Building background			.01		.01	.995
Comprehensible input			-.16		-1.24	.222
Strategies			-.02		-.14	.890
Interaction			-.18		-1.27	.209
Lesson delivery			.13		.84	.404
Review and assessment			-.08		-.60	.551

Multiple R	.50
Multiple R^2	.25
F Ratio	17.23
DF	1, 51
Sig	<.001

One predictor variable, practice and application, entered the stepwise multiple linear regression analysis, accounting for 25% of the variance in post-implementation of SIOP, F (1, 51) = 17.23, $p < .001$. This result indicated that practice and application is a statistically significant predictor of post implementation of SIOP. The remaining predictor variables, lesson preparation, building background, comprehensible input, strategies, interaction, lesson delivery, review and assessment, did not enter the stepwise multiple linear regression analysis, indicating they were not statistically significant predictors of implementation of SIOP in ESL classrooms. Based on this analysis, the null hypothesis of no relationship is rejected.

Ancillary Findings

A multivariate analysis of variance (MANOVA) was used to determine if perceptions of the components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, review and assessment) differed

relative to the number of years of teaching ESL. The results of this analysis are presented in Table 20.

Table 20

Multivariate Analysis of Variance – Perceptions of the Components of SIOP by Years of Teaching Experience

Hotelling's Trace	*F* Ratio	*DF*	Sig	η^2
.90	1.34	24, 107	.157	.23

The results of the MANOVA comparing the eight components of SIOP by the years of teaching experience was not statistically significant, F (24, 107) = 1.34, p = .157, η^2 = .23. This finding indicated that perceptions of the eight components of SIOP did not differ relative to the number of years of teaching experience. Descriptive statistics were used to examine the lack of differences on the components of teaching experience by the number of years of teaching experience. Table 21 presents results of this analysis.

Table 21

Descriptive Statistics – Components of SIOP by Years of Teaching Experience

Components of SIOP	Number	Mean	*SD*
Preparation			
1 to 5 years	19	3.25	.51
6 to 10 years	11	3.56	.38
11 to 20 years	10	3.77	.37
Over 20 years	8	3.60	.32
Building Background			
1 to 5 years	19	3.23	.76
6 to 10 years	11	3.48	.40
11 to 20 years	10	3.67	.61
Over 20 years	8	3.67	.53
Comprehensible Input			
1 to 5 years	19	3.42	.46
6 to 10 years	11	3.79	.40
11 to 20 years	10	3.80	.53
Over 20 years	8	3.71	.38
Strategies			
1 to 5 years	19	3.11	.59
6 to 10 years	11	3.39	.57
11 to 20 years	10	3.63	.53
Over 20 years	8	3.25	.56
Interaction			
1 to 5 years	19	3.28	.56
6 to 10 years	11	3.49	.43
11 to 20 years	10	3.68	.43
Over 20 years	8	3.63	.38
Practice and Application			
1 to 5 years	19	3.11	.64
6 to 10 years	11	3.61	.39
11 to 20 years	10	3.57	.47
Over 20 years	8	3.13	.96
Lesson Delivery			
1 to 5 years	19	3.21	.48
6 to 10 years	11	3.64	.38
11 to 20 years	10	3.70	.62
Over 20 years	8	3.78	.21
Review and Assessment			
1 to 5 years	19	3.41	.50
6 to 10 years	11	3.75	.32
11 to 20 years	10	3.72	.65
Over 20 years	8	3.78	.28

Based on the findings of the MANOVA, the differences in the mean scores on the components of SIOP relative to the number of years of teaching experience in ESL classrooms were not significantly different. The perceptions of the components appear to be similar across all experience levels.

Summary

The results of the statistical analyses that were used to describe the sample and address the research questions have been presented in this chapter. A discussion of the findings and recommendations based on the results are presented in Chapter 5.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to describe how English as a Second Language (ESL) teachers and ESL paraprofessionals perceive their experiences with professional development workshops focusing on cognitive coaching and the implementation of the Sheltered Instruction Observation Protocol (SIOP) Model of Instruction with their English learner (EL) students. ESL staff used sheltered instruction as an approach to provide meaningful instruction in the content areas (social studies, math, and science) to help ELs maintain their academic achievement as they reach English fluency. The Sheltered Instruction Observation Protocol (SIOP) Model (Echevarria, Vogt, & Short, 2000) was developed to provide teachers with a well-articulated, practical model of sheltered instruction that facilitates high quality instruction for English learners in content area teaching. The study also explored the role of cognitive coaching in implementing SIOP to ensure effective instruction for EL students. The cognitive coaching process was designed to assist educators improve instructional effectiveness through reflection (Garmston & Linder, 1993). The coach, working as a mediator, provides assistance to teachers in reflecting and changing their cognitive behaviors of instruction. Researchers have found cognitive coaching to be beneficial as a component of professional development for instructional staff.

A non-experimental, ex post facto research design was used in this study. The participants in the study consisted of nine ESL teachers and 44 ESL paraprofessionals who had participated in a series of professional development workshops over a two-year period on the

implementation of SIOP with their EL students. The teachers and paraprofessionals also participated in cognitive coaching throughout the two school years.

The setting for the study was an urban school district with approximately 1,500 students participating in the ESL Education Program. The majority of the ESL students were Hispanic, although other cultures were also represented in the program. ESL teachers and ESL paraprofessionals used the "Pull-Out" ESL method of instruction, with EL students removed from the general education classrooms to pre-teach, teach, or re-teach English language skills and/or academic content that is included in the general education classroom.

The ESL staff completed a three-part survey designed to evaluate SIOP workshops and cognitive coaching. The first section of the survey obtained information on the personal and professional characteristics of the participants. Perceptions of cognitive coaching, including the coaching process, post-implementation, and problems with implementation were measured in the second section of the survey. The third section of the survey was a self-assessment component of the SIOP model of instruction. The eight interrelated components of the SIOP model of instruction included: lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, and review and assessment. The cognitive coaching and self-assessment of the SIOP model of instruction had good internal consistency as measured by Cronbach's alpha coefficients.

Discussion of the Findings

The first hypotheses examined the extent to which ESL teachers and ESL paraprofessionals perceived that participation in cognitive coaching influenced their knowledge of SIOP. The results of the stepwise multiple linear regression analysis found that post-implementation as a measure of cognitive coaching was a statistically significant predictor of the ESL teachers' and ESL paraprofessionals' knowledge of SIOP. The other two measures of

cognitive coaching, problems with implementation and coaching process were not statistically significant predictors of their knowledge of SIOP.

The relationship between knowledge of SIOP and post-implementation of the SIOP model in the participants' classrooms indicated that as teachers' knowledge of SIOP increased, their use of SIOP in their classrooms also increased. The post-implementation phase of cognitive coaching in this study involved the actual application of the SIOP principles into the teachers' classrooms. Batt (2010) found that teachers who participated in a SIOP workshop and had cognitive coaching noted improvements in their practice as they developed knowledge, skills, and strategies for teaching ELs. The teachers reported positive experiences, including collegiality, reflection, and confidence, after being coached. All participating ESL staff implemented the SIOP method of instruction in their ESL classroom and reported positive effects on their students' learning. Batt (2010) concluded that professional development was not sufficient to change teacher practices. The addition of cognitive coaching provides the impetus for teachers to make changes to improve student learning with the SIOP model.

This finding also provided support for Guskey's (2002) model for professional development. He argued that teachers who attend professional development programs and then apply what they learned during the professional development program observe changes in student outcomes resulting from changes in their instructional delivery. If the changes in student outcomes are positive, teachers' perceptions regarding the importance of professional development are strengthened, and they become motivated to attend and apply what is presented in the professional development programs (Guskey, 2005). Based on the mean scores for the post-implementation of SIOP and cognitive coaching, it appears that ESL teachers and ESL

paraprofessionals had positive attitudes about attending the workshops and were applying what they had learned.

The second hypotheses examined the relationship between implementation of SIOP and the three subscales measuring cognitive coaching. Post-implementation as a measure of cognitive coaching was found to be a statistically significant predictor of implementation of SIOP in the stepwise multiple linear regression equation. The positive direction of the relationship indicated that ESL staff with higher scores on the implementation of SIOP also had more positive perceptions of post-implementation. The other two subscales, problems with implementation and the coaching process were not statistically significant predictors of implementation of SIOP.

Short, Echevarria and Richards-Tutor (2011) studied science instruction in 7th grade. The study was conducted in eight schools, with five assigned to the intervention group and three to the comparison group. Teachers in the intervention schools participated in professional development on SIOP for one semester. Coaches visited teachers' classrooms on several different days of each month. Following each visit, the coaches gave the teachers feedback. Teachers in both the intervention and comparison groups taught the same four units, using the same textbooks. The comparison group teachers developed their own lesson plans and teaching strategies, and received no coaching. The teachers in both groups were observed and their teaching was assessed by the coaches. The study findings indicated that students taught by teachers who had participated in the SIOP training performed better in science than students whose teachers were in the comparison group. Cognitive coaching appears to be instrumental in applying SIOP into classrooms to optimize EL student outcomes.

The third hypotheses sought to identify which of the eight components of SIOP (lesson preparation, building background, comprehensible input, strategies, interaction, practice and

application, lesson delivery, review and assessment) could be used to predict the three subscales of cognitive coaching. Three separate stepwise multiple linear regression analyses were used, with the three subscales of cognitive coaching (problems with implementation, coaching process, and post-implementation of SIOP) used as the dependent variables. One component of SIOP, practice and application, entered the stepwise multiple linear regression equation for post-implementation of SIOP as a statistically significant predictor. None of the components of SIOP was a statistically significant predictor for either problems with implementation or the coaching process.

Practice/application, as a component of SIOP, places an expectation on teachers to extend their ELs' language and content learning beyond the regular classroom curriculum. Teachers need to provide activities that motivate students to practice what they have learned in class and apply it in new situations. Building and reinforcing reading, writing, listening, and speaking skills within content learning is an important component of SIOP that can improve student outcomes in learning a second language (Dooley, 2009; Echevarria, Short, & Powers, 2006; Short, Echevarria, & Richards-Tutor, 2011; Short, Fidelman, & Louguit, 2012). The more that teachers had students practice and apply the principles of SIOP in their classroom, the more likely the students were to improve their learning outcomes. When teachers see that students' outcomes are improving, the teachers tend to want to implement more practices presented during professional development programs. According to Echevarria et al. 2006, strategies that teachers could use in their classroom include:

- Providing hands-on materials and/or manipulatives for students to practice using new content knowledge.

- Providing activities for students to apply content and language knowledge in the classroom.
- Providing activities that integrate all language skills (i.e., reading, writing, listening, speaking; Echevarria, Vogt, & Short, 2000).

Implications for Educators

As the number of immigrants continues to grow in the United States, ESL Education Programs become more important in helping these students to become acclimated to the language and culture of their new environment. Educational professionals, responsible for teaching ELs to read and write in English, must adopt programs that have been shown to be successful. ESL teachers and ESL paraprofessionals who work directly with EL students must be made aware of these programs through the use of professional development programs. However, according to Batt (2010), professional development may not be sufficient to motivate teachers to implement programs in their classrooms. They may need to use cognitive coaching as an adjunct that can provide the impetus for teachers to use the new practices with students. Cognitive coaching is an on-going method of mentoring that helps teachers learn and apply new practices through consultation and modeling.

Limitations of the Study

The use of a single school district may be a limitation of the study, as the outcomes might not be generalizable to other school districts with ELs. The population of ELs at this school district is unique, both in size and in homogeneous demographics. Most of the students are Hispanic and share a common language. Other school districts may have a more heterogeneous EL student population who enter school speaking different languages.

As all of the members of the population were known and identifiable, a sample was not used. The use of a census, while reducing sampling bias and sampling errors, limits the generalizability to the population being studied. However, educators in other school districts may find the outcomes useful in adopting SIOP in their schools to help ELs become proficient in English and achieve academic success.

Recommendations for Further Research

Further research is needed to provide evidence of the efficacy of using cognitive coaching to implement SIOP into classrooms with ELs. The following recommendations should be considered:

Conduct an experimental study on using SIOP in classrooms with ELs. Pretest the ESL educators prior to beginning the study on their knowledge and application of SIOP and their attitudes toward cognitive coaching. Randomly assign the ESL educators to two groups, one receiving the additive value of cognitive coaching along with professional development on SIOP and a control group that receives only the professional development segment. Professional development should be held monthly during the semester. At the end of one semester, the ESL professionals should be given a posttest to determine changes in their attitudes toward cognitive coaching and knowledge and application of SIOP.

Conduct a comparison study to determine differences in English language acquisition using results from standardized tests given annually between ELs who are receiving ESL support services using SIOP with fidelity and those who are in traditional ESL classrooms.

Study the use of cognitive coaching to reinforce topics presented in professional development in other disciplines to determine its effectiveness in having teachers implement the professional development topics in their classrooms.

Examine the use of SIOP in school districts with large heterogeneous groups of ELs to determine if the students with different L1s benefit from the SIOP model of instruction.

APPENDIX A

ESL STAFF SURVEY

PART I. Demographic Information

Gender: ❑ Male ❑ Female

Age: ❑ under 25 ❑ 26-35 ❑ 36-50 ❑ Over 50

Years of Teaching Experience: ❑ 1-5 ❑ 6-10 ❑ 11-20 ❑ 21 +

Check the box that best describes the grade levels of EL students that you primarily work with:

❑ Kindergarten to Sixth Grade ❑ Seventh to Ninth Grade ❑ Tenth to Twelfth Grade

Education Level: ❑ High School ❑ Associates ❑ Bachelors ❑ Masters ❑ Doctorate

PART II. Cognitive Coaching Process Assessment

Please answer the following questions as accurately and honestly as possible by circling the response that most closely represents your current teaching practices:

Item #	Survey statement
1.	Following initial SIOP training, I was committed to the implementation of the SIOP model with English learner students. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree
2.	Following my district initial SIOP *professional development workshops*, I still struggled with implementation of the SIOP model components in my classroom instruction. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree
3.	Upon completion of the SIOP *coaching process*, I still struggled with implementation of the SIOP model components in my classroom instruction. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree
4.	The SIOP coaching process improved my *knowledge* in the SIOP model. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree
5.	The SIOP coaching process improved my *skills* in the SIOP model. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree
6.	The consultant was effective in coaching my implementation of the SIOP model. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree

Item #	Survey statement
7.	I believe the coaching phase is critical for practitioners to implement the SIOP model. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree
8.	I have seen improvement in student achievement as a result of using the SIOP model. 1 I strongly disagree 2 I disagree 3 I agree 4 I strongly agree
9.	During or immediately following the SIOP training, I wrote and posted both content and language objectives in my classroom. 1 never 2 occasionally 3 often 4 very often
10.	I implemented the SIOP model into my instruction to a great extent during or upon *initial completion* of my SIOP *professional development training*. 1 never 2 occasionally 3 often 4 very often
11.	I implemented the SIOP model in my instruction to a great extent during or upon completion of the SIOP *coaching process*. 1 never 2 occasionally 3 often 4 very often

PART III. The SIOP Model of Instruction Self-Assessment

Using the features below, circle the number that most closely represents your current teaching practices:

	1	**2**	**3**	**4**
	Never	**Sometimes**	**Frequently**	**Daily**
		PREPARATION		
1.	I define, display, and review my *content objectives* with students each day.	1	2	3	4
2.	I define, display, and review my *language objectives* with students each day.	1	2	3	4
3.	My *content concepts* are appropriate for the age and educational background of my students	1	2	3	4
4.	I use *supplementary materials* to a high degree, making the lesson clear and meaningful (graphs, models, visuals)	1	2	3	4
5.	I *adapt my content* (e.g., text, assignment) to all levels of student proficiency	1	2	3	4
6.	I plan m*eaningful activities* that integrate lesson concepts (e.g., surveys, letter writing simulations, constructing models) with language practice opportunities for *reading, writing, listening, and speaking*	1	2	3	4

1	2	3	4
Never	**Sometimes**	**Frequently**	**Daily**

	BUILDING BACKGROUND					
7.	I *explicitly link the concepts* I teach to students' background experiences	1	2	3	4	
8.	I *explicitly link new concepts* to past learning.	1	2	3	4	
9.	*Key vocabulary is emphasized in my classroom* (introduced, written, repeated, and highlighted for students to see)	1	2	3	4	
	COMPREHENSIBLE INPUT					
10.	The *speech* in my classroom is appropriate for students' proficiency levels (e.g., slower rate, enunciation and simple sentence structure for beginners)	1	2	3	4	
11.	I provide *clear explanations of* academic tasks	1	2	3	4	
12.	I use a variety of *techniques* to make content concepts clear (modeling, visuals, hands-on activities, demonstrations, gestures, body language)	1	2	3	4	
	STRATEGIES					
13.	I provide ample opportunities for students to use *learning strategies*	1	2	3	4	
14.	*Scaffolding techniques* are consistently used throughout my lessons, assisting and supporting student understanding	1	2	3	4	
15.	I use a variety of *questions and tasks throughout my lessons that promote higher-order thinking skills* (e.g., literal, analytical, and interpretive questions)	1	2	3	4	
	INTERACTION					
16.	I plan frequent opportunities for *interaction and discussion* among students and between teacher and students	1	2	3	4	
17.	My *grouping configurations* support language and content objectives of my lesson	1	2	3	4	
18.	I consistently provide sufficient *wait time for student responses*	1	2	3	4	
19.	I provide ample opportunities for students to *clarify key concepts in their first language (L1)* as needed	1	2	3	4	
	PRACTICE AND APPLICATION					
20.	I provide *hands-on* materials and/or manipulatives for students to practice using new content knowledge	1	2	3	4	
21.	I provide activities for students to *apply content and language knowledge*	1	2	3	4	
22.	I plan activities that integrate all *language skills*: *reading, writing, listening, and speaking*	1	2	3	4	
	LESSON DELIVERY					
23.	My *content objectives* are clearly supported by lesson delivery	1	2	3	4	
24.	My *language objectives* are clearly supported by lesson delivery	1	2	3	4	

1	2	3	4
Never	**Sometimes**	**Frequently**	**Daily**

25.	My *students are engaged* approximately 90-100% of the period	1	2	3	4
26.	The *pacing* of my lessons is appropriate to students' ability levels	1	2	3	4
	REVIEW AND ASSESSMENT				
27.	I *clearly review key vocabulary*	1	2	3	4
28.	I *clearly review key content concepts*	1	2	3	4
29.	I provide frequent *feedback* to students on their output	1	2	3	4
30.	I *conduct assessment* of student comprehension and learning of objectives throughout the lesson	1	2	3	4

APPENDIX B

RESEARCH INFORMATION SHEET

Title of Study: **Influence of SIOP Cognitive Coaching Workshops on Teaching Practices of ESL Teachers and ESL Paraprofessionals**

Principal Investigator (PI): Ruben Alicea
Curriculum and Instruction

Purpose:

You are being asked to be in a research study to describe how English as a Second Language (ESL) teachers and ESL paraprofessionals perceive their experiences with a series of on-going professional development workshops in which you participated. The focus of the workshops is on cognitive coaching and the implementation of the Sheltered Instruction Observation Protocol (SIOP) Model of Instruction with English Learner (EL) students. This study is being conducted at Wayne State University.

Study Procedures:

If you take part in the study, you will be asked to complete surveys on implementation of SIOP and cognitive coaching, as well as a short demographic survey. Your total involvement should not be more than 30 minutes. Sample survey items include:

- I began implementation of the SIOP model with English learner students.
- I provide clear explanations of academic tasks.
- I provide ample opportunities for student to use learning strategies.
- My content objectives are clearly supported by lesson delivery.

Benefits:

As a participant in this research study, there will be no direct benefit for you; however, information from this study may benefit other people now or in the future.

Risks:

There are no known risks at this time to participation in this study.

Costs:

The study sponsor will pay for all costs and charges from taking part in this research study.

Research Information Sheet

Title of Study: **Influence of SIOP Cognitive Coaching Workshops on Teaching Practices of ESL Teachers and ESL Paraprofessionals**

Principal Investigator (PI): Ruben Alicea
Curriculum and Instruction

Compensation:

You will not be paid for taking part in this study.

Confidentiality:

All information collected about you during the course of this study will be kept without any identifiers.

Voluntary Participation /Withdrawal:

Taking part in this study is voluntary. You may choose not to participate in this study You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with Wayne State University or its affiliates

Questions:

If you have any questions about this study now or in the future, you may contact Ruben Alicea or one of his research team members at the following phone number: . If you have questions or concerns about your rights as a research participant, the Chair of the Institutional Review Board can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call (313) 577-1628 to ask questions or voice concerns or complaints.

Participation:

By completing the surveys you are agreeing to participate in this study.

APPENDIX C

SERIES OF SIOP PROFESSIONAL DEVELOPMENT WORKSHOPS

The participants of the workshop series consisted of nine ESL teachers and 44 ESL paraprofessionals employed in an urban school district. The workshop attendees work with English learner (EL) students in grades kindergarten through twelfth grade, and participated in a series of 12 professional development workshop sessions. The focus of the workshops was on the implementation of effective teaching strategies, for English learner (EL) students, through the use of the Sheltered Instruction Observation Protocol (SIOP) Model. A non-judgmental cognitive coach was used to promote reflective practice, and lead ESL staff to self-directed learning.

The series of 12 SIOP workshops occurred over a two-year period beginning in the 2011-2012 school-year. The workshops were scheduled after-school hours from 4:00 p.m. to 6:00 p.m. on every third Thursday of each month for 12 months. The workshop sessions were facilitated by a Bilingual/ESL Program Coordinator in the College of Education in an urban University. The workshop presenters consisted of Professors from the Teacher Education Division in the College of Education.

APPENDIX D

WAYNE STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD APPROVAL

WAYNE STATE UNIVERSITY

IRB Administration Office
87 East Canfield, Second Floor
Detroit, Michigan 48201
Phone: (313) 577-1628
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http://irb.wayne.edu

NOTICE OF EXPEDITED APPROVAL

To: Ruben Alicea
Teacher Education
From: Dr. Deborah Ellis or designee
Chairperson, Behavioral Institutional Review Board (B3)

Date: March 18, 2014

RE: IRB #: 017114B3E
Protocol Title: Influence of SIOP Cognitive Coaching Workshops on Teaching Practices of ESL Teachers and ESL Paraprofessionals
Funding Source:
Protocol #: 1402012774

Expiration Date: March 17, 2015

Risk Level / Category: Research not involving greater than minimal risk

The above-referenced protocol and items listed below (if applicable) were **APPROVED** following *Expedited Review* Category (#7)* by the Chairperson/designee for the Wayne State University Institutional Review Board (B3) for the period of 03/18/2014 through 03/17/2015. This approval does not replace any departmental or other approvals that may be required.

- Revised Protocol Summary Form (received in the IRB Office 3/17/14)
- Protocol (received in the IRB Office 1/29/14)
- A waiver of requirement for written documentation of informed consent has been granted according to 45 CFR 46 116(d). This waiver satisfies: 1) the research involves no more than minimal risk to the participants. Survey and interview only; 2) the research involves no procedures for which written consent is normally required outside of the research context. Survey and interview only; 3) the consent process is appropriate and 4) an information sheet disclosing the required and appropriate additional elements of consent disclosure will be provided to participants.
- Research Information Sheet (dated 1/22/14)
- Email message to ESL Teachers and ESL Paraprofessionals
- Data Collection Tool: Survey

" Federal regulations require that all research be reviewed at least annually. You may receive a *"Continuation Renewal Reminder"* approximately two months prior to the expiration date; however, it is the Principal Investigator's responsibility to obtain review and continued approval **before** the expiration date. Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research data.

" All changes or amendments to the above-referenced protocol require review and approval by the IRB **BEFORE** implementation.

" Adverse Reactions/Unexpected Events (AR/UE) must be submitted on the appropriate form within the timeframe specified in the IRB Administration Office Policy (http://www.irb.wayne.edu/policies-human-research.php).

NOTE:

1. Upon notification of an impending regulatory site visit, hold notification, and/or external audit the IRB Administration Office must be contacted immediately.
2. Forms should be downloaded from the IRB website at **each** use.

*Based on the Expedited Review List, revised November 1998

REFERENCES

Ardasheva, Y., Tretter, T. R. and Kinny, M. (2012), English Language Learners and Academic Achievement: Revisiting the Threshold Hypothesis. *Language Learning, 62*, 769–812. doi: 10.1111/j.1467-9922.2011.00652.x

Arellano-Houchin, A., Flamenco, C., Merlos, M. M., & Segura, L. (2001). Has California's passage of Proposition 227 made a difference in the way we teach? *The Urban Review*, *33*(3), 221-235. Retrieved from

Baker, C. (2006). *Foundations of bilingual education and bilingualism* (4th ed.). Tonawanda, NY: Multilingual Matters Ltd. http://link.springer.com/article/10.1023%2FA%3A1010366004719

Bardack, S. (2010). *Common ELL Terms and Definitions*. http://www.air.org/files/NEW_-_Common_ELL_TERMS_AND_DEFINITIONS_6_22_10.pdf

Batt, E. G. (2008). Teacher's perceptions of ELL education: potential solutions to overcome the greatest challenges. *Multicultural Education, 15*(3), 39-43. Retrieved from http://connection.ebscohost.com/c/articles/32115488/teachers-perceptions-ell-education-potential-solutions-overcome-greatest-challenges

Batt, E. G. (2010). Cognitive coaching: A critical phase in professional development to implement sheltered instruction. *Teaching and Teacher Education 26*, 997-1005. doi: 10.1016/j.tate.2009.10.042

Butler, F.A. and Stevens, R. (2001). Standardized assessment of the content knowledge of English language learners K-12: Current trends and old dilemmas. *Language Testing, 18*(4), 409-428. doi: 10.1177/026553220101800406

Calderón, M., Slavin, R., & Sánchez, M. (2011). Effective instruction for English learners. *The*

Future of Children, *21*(1), 103-127. Retrieved from http://futureofchildren.org/futureofchildren/publications/docs/21_01_05.pdf

Carmichael, S. B., Martino, G., Porter-Magee, K., & Wilson, W. S. (2010). The State of State Standards--and the Common Core--in 2010. Washington, DC: *Thomas B. Fordham Institute*. Retrieved from http://edexcellence.net/publications/the-state-of-state-of-standards-and-the-common-core-in-2010.html

Clair, N. (2000). Teaching educators about language: principles, structures and challenges. Retrieved July 28, 2007, from http://www.cal.org/resources/digest/0008teaching.html.

Clewell, B., & Consetino de Cohen, C. (2007). *Putting English language learners on the educational map*. Education in Focus Urban Institute Policy Brief. Washington, DC: Urban Institute. Retrieved from http://www.urban.org/UploadedPDF/311468_ell.pdf

Costa, A. L., & Garmston, R. J. (1994). *Cognitive coaching: A foundation for renaissance schools*. Norwood, MA: Christopher-Gordon Publishers.

Costa, A. L., & Garmston, R. J. (2002). *Cognitive coaching: A foundation for renaissance schools* (2nd ed.). Norwood, MA: Christopher-Gordan Publishers.

Costa, A., & Garmston, R. (n.d.). Cognitive coaching. Retrieved from http://peerobservationprogram.wikispaces.com/file/view/questioningtechniques.pdf

Cummins, J. (1980). The cross-lingual dimensions of language proficiency: Implications for bilingual education and the optimal age issue. *Teachers of English to Speakers of Other Languages, Inc. (TESOL) Quarterly, 175-187. Retrieved from http://www.jstor.org/stable/3586312*

Dooley, K. (2009). Re-thinking pedagogy for middle school students with little, no or severely interrupted schooling. *English Teaching: Practice & Critique*, *8*(1). Retrieved from http://education.waikato.ac.nz/research/files/etpc/files/2009v8n1art1.pdf

Echevarria, J., Richards-Tutor, C., Canges, R., & Francis, D. (2011). Using the SIOP model to promote the acquisition of language and science concepts with English learners. *Bilingual Research Journal: The Journal of the National Association for Bilingual Education, 34*(3), 334-351. doi: 10.1080/15235882.2011.623600

Echevarria, J., Richards-Tutor, C., Chinn, V. P., & Ratleff, P. A. (2011). Did they get it? The role of fidelity in teaching English learners. *Journal of Adolescent & Adult Literacy*, *54*(6), 425-434.

Echevarria, J., Short, D., & Powers, K. (2008). Making Content Comprehensible for Non-Native Speakers of English: The SIOP Model. *International Journal of Learning*, *14*(11), 41-50. Retrieved from http://deborahshort.cgpublisher.com/product/pub.30/prod.1562

Echevarria, J., Short, D., & Powers, K. (2006). School reform and standards-based education: A model for English-language learners. *The Journal of Educational Research*, *99*(4), 195-211. Retrieved from http://ijb.cgpublisher.com/product/pub.30/prod.1556

Echevarria, J., Short, D.J., & Vogt, M.E. (2008). *Implementing the SIOP model through effective professional development and coaching*. Boston: Pearson/Allyn &Bacon.

Echevarria, J., Vogt, M., & Deborah, J. Short. (2000). *Making content comprehensible for English language learners: The SIOP model.* Boston: Allyn and Bacon.

Echevarria, J., Vogt, M.E., & Short, D. J. (2012). *Making content comprehensible for English learners: The SIOP model* (4th ed.). Boston: Pearson/Allyn & Bacon.

Eger, K. A. (2006). *Teachers' perception of the impact of cognitive coaching on their teacher*

thinking and behaviors. Unpublished Doctoral Dissertation. University of Illinois at Urbana-Champaign, IL.

Ernst-Slavit, G., Moore, M., & Maloney, C. (2002). Changing lives: Teaching English and literature to ESL students. *Journal of Adolescent and Adult Literacy*, *46*(2), 116-131. Retrieved from http://www.jstor.org/stable/40015434

Faulkner-Bond, Molly, et al. (2012). *Language instruction educational programs (LIEPs): A review of the foundational literature*. Washington, DC: Office of Planning, Evaluation and Policy Development, US Department of Education. Retrieved from http://www.ed.gov/about/offices/list/opepd/ppss/reports.html.

Further, E. L. L. (2007). *Urgent but overlooked: The literacy crisis among adolescent english language learners*. Washington, DC: Alliance for Education. Retrieved from http://all4ed.org/reports-factsheets/urgent-but-overlooked-the-literacy-crisis-among-adolescent-english-language-learners/

Garmston, R., & Linder, C. (1993, October). Reflections on cognitive coaching. *Educational Leadership, 51*(2), 57-61. Retrieved http://www.ascd.org/publications/educational-leadership/oct93/vol51/num02/Reflections-on-Cognitive-Coaching.aspx

Gersten, R., Baker, S. K., Haager, D., & Graves, A. W. (2005). Exploring the role of teacher quality in predicting reading outcomes for first-grade English Learners an Observational Study. *Remedial and Special Education*, *26*(4), 197-206. doi: 10.1177/07419325050260040201

Goldenberg, C. (2008). Teaching English language learners: What the research does and does not say. *American Educator, 33*(2), 8-23. Retrieved from http://www.aft.org/pdfs/americaneducator/summer2008/goldenberg.pdf

Goodwin, A. L. (2002). Teacher preparation and the education of immigrant children. *Education and Urban Society*, *34*(2), 156-172.

Guarino, A. J., Echevarria, J., Short, D., Schick, J.E., Forbes, S., & Rueda, R. (2001). The Sheltered Instruction Observation Protocol: Reliability and validity assessment. *Journal of Research in Education, 11*(1), 138-140. Retrieved from http://eeraonline.org/journal/2001.cfm

Guskey, T. R. (2009). Thomas Guskey's 5 levels of professional development evaluation. *Education Minnesota*. http://www.educationminnesota.org/en/professional-development/tall/5levels.aspx

Guskey, T. R. (2005). Taking a second look at accountability: Strong evidence reflecting the benefits of professional development is more important than ever before. *Journal of Staff Development*, *26*(1), 10-18. Retrieved from http://learningforward.org/login?ReturnURL=%2fdocs%2fjsd-winter-2005%2fgus261.pdf%3fsfvrsn%3d2#.U90lPmOB-o0

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice, 8*(3/4), 381-391. doi: 10.1080/13540600210000051 2

Hakuta, D., Butler, Y.G., & Witt, D. (2000). How long does it take English learners to attain proficiency? http://lmri.ucsb.edu/publications/00_hakuta.pdf

Hill, J. D., & Flynn, K. (2008). Asking the right questions. *Journal of Staff Development*, *29*(1), 46-52. Retrieved from http://learningforward.org/publications/blog-landing/jsd/2012/06/30/jsd-winter-2008-english-language-learners#.U90pQ2OB-o0

Hirsh, S. (2009). A new definition. *National Staff Development Council*, *30*(4), 10-15. Retrieved from http://www.culpeperschools.org/hs/clc/NSDCNewdefinintionArticle.pdf

Joyce, B. R., & Showers, B. (2002). *Student achievement through staff development*. ASCD.

Krashen, S. (2009). *Principles and practice in second language acquisition* (Internet Edition). Pergamon: Oxford. Retrieved from http://search.yahoo.com/search?fr=mcafee&type=A111US370 &p=Principles+and+practice+in+second+language+acquisition

Krashen, S. D., & Terrell, T. D. (1983). *The natural approach* (pp. 20-20). Oxford: Pergamon.

Lambert, L. (2003). *Leadership capacity for lasting school improvement*. Association for Supervision and Curriculum Development (ASCD), Alexandria, VA

Lazarin, M. (2006). *Improving assessment and accountability for English language learners in the No Child Left Behind Act*. (Issue Brief No. 6). Washington, DC: National Council of La Raza. Retrieved from http://www.bing.com/search?form=MOZPSB&pc=MOZO &q=Improving+assessment+and+accountability+for+English+language+learners+in+the +No+Child+Left+Behind+Act.

McCardle, P., Mele-McCarthy, J., Cutting, L., Leos, K., & D'Emilio, T. (2005). Learning disabilities in English language learners: Identifying the issues. *Learning Disabilities Research & Practice*, *20*(1), 1-5. doi: 10.1111/j.1540-5826.2005.00114.x

Mosqueda, E. (2010). Compounding inequalities: English proficiency and tracking and their relation to mathematics performance among Latina/o secondary school youth. *Journal of Urban Mathematics Education*, *3*(1), 57-81. Retrieved from http://education.gsu.edu/JUME

National Center for Education Statistics (1999). Teacher quality: A report on the preparation and qualifications of public school teachers. Retrieved January 19, 2009, from http://www.nces.ed.gov/surveys/frss/publications/1999080/.

Nieto, S. (2002). *Language, culture, and teaching: Critical perspectives for a new century.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Ovando, C.J., Collier, V.P., & Combs, M.C. (2003). *Bilingual and ESL classrooms: Teaching in multicultural contexts* (3rd ed.), Boston: McGraw Hill.

Professional Learning Board (2014). *What is sheltered learning?* Retrieved from https://k12teacherstaffdevelopment.com/tlb/what-is-sheltered-instruction/

Read, F. D. (2009). *The impact of the sheltered instruction observation protocol (SIOP) on the instructional practices of elementary school teachers and on the reading achievement of English language learners.* (Doctoral dissertation, Wilmington University). Available from ProQuest Dissertations and Theses database. (UMI No. 3342830)

Samson, J. F., & Collins, B. A. (2012). *Preparing all teachers to meet the needs of English language learners: Applying research to policy and practice for teacher effectiveness.* Washington, DC: Center for American Progress. Retrieved from http://www.americanprogress.org/issues/2012/04/pdf/ell_report.pdf

Short, D. J., Echevarria, J., & Richards-Tutor, C. (2011). Research on academic literacy development in sheltered instruction classrooms. Language Teaching Research, 15(3), 363-380. doi: 10.1177/1362168811401155

Short, D. J., & Fitzsimmons, S. (2007). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners: A report to Carnegie Corporation of New York*. Alliance for Excellent Education. Retrieved from http://www.nwp.org/cs/public/print/resource/2479

Short, D. J., Echevarría, J., & Richards-Tutor, C. (2011). Research on academic literacy development in sheltered instruction classrooms. *Language Teaching Research*, *15*(3), 363-380. doi: 10.1177/1362168811401155

Short, D.J., & Echevarria, J. (1999). The sheltered instruction observation protocol: A tool for teacher-researcher collaboration and professional development.

Short, D., Fidelman, C., & Louguit, M. (2012). Developing academic language in English learners through sheltered instruction. TESOL Quarterly, 46(2), 334-361. doi: 10.1002/tesq.20

Snow, C. E., & Biancarosa, G. (2003). *Adolescent literacy and the achievement gap: What do we know and where do we go from here?* New York: Carnegie Corporation.

Son, A. (2013, November). Making Achievement a Priority: MDE Changes English Language Proficiency Standards from ELPA to WIDA. MIToolkit.org. Retrieved January 14, 2014, from https://teds.educ.msu.edu/focus/17-newsfeed/79-mde-changes-english-language-proficiency-standards-from-elpa-to-wida

Ulrich, D. & Johnson, J. (2011). *Demystifying the Coaching Mystique.* The RBL White Paper Series. Provo, UT: The RBL Group. Retrieved from http://rbl.net/index.php/library/display-content-page/1332

Vogt, M., & Echevarria, J. (2008). *99 Ideas and Activities for Teaching English Learners with the SIOP Model*. Pearson Allyn and Bacon.

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad.* Dallas, TX. National Staff Development Council. Retrieved from https://edpolicy.stanford.edu/publications/pubs/187

What Works Clearinghouse (WWC) Intervention Report English Language Learners (June, 2009). Sheltered Instruction Observation Protocol (SIOP). Institute of Education Sciences (IES). Retrieved from http://ies.ed.gov/ncee/wwc/pdf/wwc_siop_061609.pdf

WIDA Consortium. (2006). English language proficiency standards and resource guide, 2007 edition, prekindergarten through Grade 12. *Madison, WI: Board of Regents of the University of Wisconsin System*.

ABSTRACT

INFLUENCE OF SIOP COGNITIVE COACHING WORKSHOPS ON TEACHING PRACTICES OF ESL TEACHERS AND ESL PARAPROFESSIONALS

by

RUBEN ALICEA

December 2014

Advisor: Dr. Sharon L. Elliott

Major: Curriculum and Instruction

Degree: Doctor of Education

The purpose of this study was to explore and report on the influence that cognitive coaching, as an embedded part of professional development, has on ESL teachers' and ESL paraprofessionals' learning and practice in the context of educating English learner (EL) students using the Sheltered Instruction Observation Protocol (SIOP) model of instruction. An examination was made on the views of 53 ESL teachers and paraprofessionals regarding participation in a series of 12 professional development workshops, use of cognitive coaching, and implementation of the SIOP with their EL students. As part of their participation in the professional development, self-reflection data were collected at the end of the professional development series.

Three instruments were used to collect data regarding perceptions of cognitive coaching and the SIOP model, as well as a short demographic survey. The findings found that post-implementation as a measure of cognitive coaching was a statistically significant predictor of the ESL teachers' and ESL paraprofessionals' knowledge of SIOP. In addition, the relationship between knowledge of SIOP and post-implementation of the SIOP model in the participants' classrooms indicated that as ESL teachers' and ESL paraprofessionals' knowledge of SIOP

increased, their use of SIOP in their classrooms also increased. The post-implementation phase of cognitive coaching in this study involved the application of the features of the SIOP model into the teachers' classrooms. Further research is needed to provide evidence of the efficacy of using cognitive coaching to implement SIOP into classrooms with ELs.

AUTOBIOGRAPHICAL STATEMENT

RUBEN ALICEA

Education

Wayne State University, Detroit, Michigan
2014 – Doctor of Education
Major: Curriculum and Instruction

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2001 – Master of Arts in Teaching
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Certifications

Education Specialist Certificate
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English (BA) 6-8
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Professional Experience

2010 to Present – Director, Office of Bilingual and ESL Education
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1995 – 2003 – Teacher, Foreign Language (Spanish)
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